Inductive Proximity Switches
Induktive Näherungsschalter

Capacitive Proximity Switches
Kapazitive Näherungsschalter

Safety instruction:
Only properly qualified personnel is authorized to install these devices and connect them to the power supply. Applications where personal safety depends on the function of the devices are not authorized by the manufacturer!

Sicherheitshinweis:
Der Einbau und elektrische Anschluss dieser Geräte darf nur durch Fachpersonal erfolgen. Anwendungen, bei denen die Sicherheit von der Gerätefunktion abhängt, sind unzulässig!

Subject to technical modification / E. & O.E. Release: September 2015
Irrtümer und Änderungen vorbehalten! Stand September 2015

STANDARD

Dietz Sensortechnik **Standard** Series sensors cover all popular industry diameters including square-sections of 5×5mm and 8×8mm respectively. The Standard Series of sensors represent the basic sensing distances of each size. Inductive sensors in the Standard Series have ranges which are the perfect choice for cost sensitive applications where longer sensing distances are not required. Even the Standard Series sensors, which are rated to be used between –25…+75°C, come with a protection class of IP67 and are ideal for use in general purpose applications.

STANDARD

Die **Standard** Serie von Dietz Sensortechnik deckt alle üblichen Durchmesser, einschließlich quaderförmiger Bauformen mit 5×5 mm und 8×8 mm, ab und stellt die Basis-Schaltabstände einer jeden Abmessung dar. Induktive Sensoren der Standardreihe sind die perfekte Wahl bei preisempfindlichen Anwendungen, die nicht von hohen Schaltabständen profitieren. Auch wenn sie die Basis bilden, sind alle Sensoren für den Einsatz bei –25…+75 °C, sowie einer Schutzart von IP67 spezifiziert und ideal für allgemeine Anwendungen.

INCREASED / EXTENDED

If there are application requirements for longer sensing distances, sensors from the **Increased / Extended** Series offer up to three times further sensing distances than that of the Standard sensor family. The extended sensing distance allows for a longer range and therefore allows the electronics to be placed in a "safe area"– reducing the risk of mechanical damage. The electronic circuits for the **Increased / Extended** Series fit into the same housing with the same dimensions as those of the Standard Series of sensors.

ERHÖHT / ERWEITERT

Erfordern mechanische Bedingungen höhere Schaltabstände, bieten Sensoren der **Extended** oder **Increased** Serie bis zu drei mal mehr Schaltabstand als die Standard Serie. Dadurch erhöht sich der zur Verfügung stehende »Sicherheitsabstand«, was die Gefahr mechanischer Beschädigung mindert. Schaltungen aus diesen Serien werden in den gleichen Abmessungen verbaut, die auch bei der Standard Serie Verwendung finden.

ADVANCED

In some work environments, extremely high sensing distances are required and essential for proper operation. Sensors from the outstanding **Advanced** Series offer the absolute best-in-class sensing distances. Semi-shielded sensors as e.g. M8 with 4mm sensing distance, M12 with 8mm sensing distance and M18 with 15mm sensing distance.The unshielded sensors, M30 with 50mm sensing distance, achieve 25% more sensing distance when compared with the longest range sensors used by competitors enclosed within the same housing diameter.

HOCHENTWICKELT

In einigen Umgebungen sind höchste Schaltabstände für einen einwandfreien Betrieb entscheidend. Sensoren der herausragenden **Advanced** Serie bieten die absolut höchsten Schaltabstände ihrer Klasse, z.B. quasi-bündige Sensoren wie M8 mit 4 mm Schaltabstand, M12 mit 8 mm Schaltabstand und M18 mit 15 mm Schaltabstand. Die nicht bündigen Sensoren M30 mit einem Schaltabstand von 50 mm erreichen 25% mehr Schaltabstand als bei den meisten Mitbewerbern in der gleichen Bauform.

INDUCTIVE - MINIATURE

Engineers are often faced with a particular need for sensors that fit into small areas or spaces. The Inductive **Miniature** Series include self-contained sensors which range in size from Ø3 mm to M5 including square-sectional sensors of 5×5mm. The Inductive Miniature Series is guaranteed to be manufactured with built-in LED indicators, short-circuit-proof output drivers, and reverse polarity protection.

INDUKTIV - MINIATUR

Häufig benötigen Konstrukteure Sensoren für kleine Einbauorte. Die Miniature Serie bietet Sensoren mit eingebautem Verstärker im Bereich von Ø3 mm bis M×5 mm. Alle Geräte der induktiven **Miniature** Serie werden in jedem Fall mit eingebauter LED-Anzeige, Verpolschutz und kurzschlussfesten Ausgangstreibern angeboten.

INDUCTIVE - METAL-FACE TECHNOLOGY

Inductive sensors utilizing **Metal-Face** Technology are constructed with housings made from one continuous piece of stainless steel which also includes the sensing face. This extra portion of robustness creates an ideal sensor for working in environments where even long sensing ranges cannot prevent mechanical sensor damage from taking place. The highly optimized electronics allows to manufacture these robust and reliable sensors using very short housings, which allow for mounting in smaller locations. The advantages of this innovative Metal-Face Technology can also be found in the **Weld-Field-Immune** Series and the **High Pressure** Series.

INDUKTIV - METAL-FACE TECHNOLOGIE

Induktive Sensoren mit **Metal-Face** Technologie verwenden ein durchgehendes Edelstahlgehäuse, einschließlich der Sensorfläche. Dieses Extra an Robustheit prädestiniert sie in Umgebungen, in denen auch hohe Schaltabstände eine mechanische Beschädigung nicht verhindern können. Aufgrund hochgradig optimierter Schaltungen können diese robusten und verlässlichen Sensoren in sehr kurzen Gehäusen gefertigt werden, welche die Verwendung unter beengten Einbaubedingungen erlauben. Die Vorteile dieser innovativen Metal-Face Technologie finden sich ebenfalls in den **schweißfesten** und **druckfesten** Serien.

INDUCTIVE - HIGH TEMPERATURE

The **High Temperature** Series sensors have been designed to permanently operate under temperatures ranging between –25°C and + 180°C (–13°F…356°F). The evaluation electronics of the High Temperature Series sensors utilize the same housing dimensions as other sensor series. This allows for a high level of mounting standardization should your existing sensor require replacing with a higher temperature rated sensor. High Temperature Series sensors are available in sizes from M8 to M30 and are equipped with silicone or Teflon® (PTFE) cables. Silicone cables have an impressive flexibility which makes it a perfect choice for installations where the sensors mounting location continuously moves. Conversely, Teflon® has an excellent robustness and should be considered only for permanent, non-motion related installations.

INDUKTIV - HOCHTEMPERATUR

Induktive **Hochtemperatur** Sensoren wurden für den dauerhaften Einsatz bei Temperaturen von –25 bis +180 °C (–13 … 356 °F) entwickelt. Die Schaltungen der Hochtemperatur Sensoren passen in exakt die gleichen Gehäuseabmessungen der anderen Serien von Dietz Sensortechnik. Diese Vereinheitlichung erlaubt den problemlosen Austausch, sollte ein Sensor temperaturbedingt ersetzt werden müssen. Die Hochtemperatur Sensoren sind in den Bauformen M8 bis M30 erhältlich und sind wahlweise mit Silikon- oder Teflon® (PTFE) Anschlussleitungen ausgestattet. Silikonleitungen verfügen über eine beeindruckende Flexibilität, was sie für Anwendungen mit bewegten Sensoren prädestiniert. Im Gegensatz dazu hat Teflon® eine ausgezeichnete Widerstandsfähigkeit, sollte aber nur bei festen Installationen eingesetzt werden.

INDUCTIVE - HIGH PRESSURE

Precise position sensing that operates under high pressure requires well-constructed sensors. This product range fulfills these requirements with the wide range of **High Pressure** Series sensors produced with two specialized technologies. These technologies result in a permanent pressure-resistant level of up to 1000 bar (14503psi). Sensors for pressures of up to 500 bar (7251psi), utilize traditional ceramic sealing to separate both the ferrite / coil combination and the evaluation electronics from the pressure-facing section of the housing. This calls for the housing of the sensor to be constructed from one continuous piece of stainless steel, which also includes the sensing face. These full-metal constructions offer excellent peak-pressure immunity and survive even under the harshest environments. Most High Pressure Series Sensors are available with a built-in LED indicator to simplify mechanical set-up.

INDUKTIV - DRUCKFEST

Die präzise Positionsbestimmung unter Hochdruck erfordert gut konstruierte Sensoren. Dietz Sensortechnik erfüllt diese Anforderungen mit einer großen Auswahl an **druckfesten** Sensoren, die auf zwei unterschiedlichen Technologien basieren. Diese Produktionsverfahren ergeben eine dauerhafte Druckfestigkeit von bis zu 1000 bar (14503 psi). Sensoren mit einer Druckfestigkeit bis zu 500 bar basieren auf einer üblichen Keramikdichtplatte, um die Spulen-Ferrit-Kombination und die Elektronik von der Druckseite zu trennen. Um eine außergewöhnliche Widerstandsfähigkeit bei hohen Drücken zu erreichen, werden einige Sensoren mit der Metal-Face Technologie gefertigt, bei der der Sensor aus einem durchgehenden Edelstahlgehäuse, einschließlich der Sensorfläche, besteht. Diese Konstruktion bietet ausgezeichnete Eigenschaften bei wechselnden Belastungen und besteht auch unter den härtesten Bedingungen. Zur Erleichterung der Montage sind nahezu alle druckfesten Sensoren mit LED-Anzeige erhältlich.

INDUCTIVE - WELD-FIELD-IMMUNE

Weld-Field Immune Series sensors from Dietz Sensortechnik are capable of operating even if exposed to the heaviest of magnetic fields typically seen when sensors are installed too close to industrial welding equipment. To meet the multitude of different demands from design engineers. The Weld-Field Immune Series sensors were diversified into two different categories. The first, and more economical category, is supplied with brass housings and a PTFE front cap. The second, designed with Metal-Face technology, is for those environments where a high level of mechanical robustness and reliability is preferred or necessary. Both versions utilize the same coil-less technology with Reduction Factor-1 characteristics. This feature enables an increased versatility and usefulness for applications where ferrous and non-ferrous metal are required to be handled with the same sensor.

INDUKTIV - SCHWEISSFEST

Schweißfeste Sensoren von Dietz Sensortechnik funktionieren auch unter dem Einfluss von schwersten magnetischen Feldern, wie sie z. B. auftreten, wenn Sensoren nahe industrieller Schweißvorrichtungen montiert werden. Um unterschiedlichen Ansprüchen gerecht zu werden, wurden die schweißfesten Sensoren in zwei Klassen unterteilt. Die erste und kostengünstige Version wird mit Messinggehäuse und PTFE-Frontkappe geliefert. Die zweite, ausgestattet mit Metal Face Technologie, ist für Umgebungen, in denen ein hohes Niveau an Robustheit und Verlässlichkeit gewünscht oder erforderlich ist. Beide Versionen verwenden die gleiche spulenlose Technologie mit Reduktionsfaktor-1 Verhalten. Diese Eigenschaft ist besonders vorteilhaft in Applikationen, in denen eisenhaltige und nicht eisenhaltige Metalle mit dem gleichen Sensor erkannt werden müssen.

INDUCTIVE - ANALOG OUTPUT

Sensors with **Analog Output** are able to precisely measure distances to metal objects. They are ideal for position adjustment, distance measurement, metal classification or comparable applications. Analog current or voltage output is available in Extended Sensing distances in sizes ranging from M8 to M30.

INDUKTIV - ANALOGAUSGANG

Sensoren mit Analogausgang können präzise Abstände zu metallischen Objekten messen. Sie sind ideal zur Positionseinstellung, Abstandsmessung, Metallunterscheidung oder vergleichbaren Aufgaben. Analoge Strom- oder Spannungsausgänge mit erweitertem Schaltabstand sind in den Bauformen M8 bis M30 erhältlich.

TWO-WIRE

For installations which require the use of a sensor with a two-wire connection, Dietz Sensortechnik offers Standard and Extended ranges for both AC and DC voltages. This enables Dietz Sensortechnik the ability to offer a **Two-Wire** Series sensor with sensing ranges reaching up to 25mm. Two-Wire Series sensors requiring **NAMUR** specifications are available in any standard diameter as well as in most space saving housing lengths.

2-LEITER

Für Installationen, bei denen sich Sensoren mit **2-Leiter**-Anschluss lohnen, bietet Dietz Sensortechnik Schaltabstände im Bereich Standard und Erweitert, sowohl für Gleich- und Wechselspannung. Dietz Sensortechnik bietet 2-Leiter-Sensoren mit bis zu 25 mm Schaltabstand an. 2-Leiter Sensoren entsprechend NAMUR-Spezifikationen sind in jedem gängigen Durchmesser, und auch in sehr platzsparenden Gehäuselängen, erhältlich.

CAPACITIVE - EXTENDED

The **Extended** Series of capacitive sensors cover all popular diameters between Ø6.5 mm and M30. The Standard series comes with excellent sensing distances by default. The Capacitive Extended Series sensors are a perfect choice for cost sensitive applications where extra-long sensing distances are not required. The Capacitive Extended Series of sensors form the basic / standard level of specifications. All sensors are rated to be used between –25…+75°C, rated with a protection level of IP67, and are ideal for general purpose applications.

KAPAZITIV - ERWEITERT / EXTENDED

Die **Extended** Serie deckt alle gängigen Durchmesser zwischen Ø6.5 mm und M30 ab. Bereits die Standard-Baureihe verfügt über außerordentlich hohe Schaltabstände. Die Extended Serie bildet die Basis, bei der alle Sensoren für den Einsatz bei –25…+75 °C sowie der Schutzart IP67 spezifiziert wurden; sie sind daher ideal für allgemeine Anwendungen.

CAPACITIVE - ADVANCED

In some work environments, high sensing distances are more than just a luxury, it is a necessity. Capacitive Sensors from the outstanding **Advanced** Series offer absolute best-in-class sensing distances. Shielded capacitive sensors such as e.g. M8 with 2mm sensing distance, M12 with 6 mm sensing distance, and M18 with 15 mm sensing distance. Unshielded Capacitive Advanced Series in M30 housings achieve up to a 35mm sensing distance.

KAPAZITIV - HOCHENTWICKELT

In einigen Umgebungen sind höchste Schaltabstände mehr als nur hilfreich. Sensoren der hervorragenden kapazitiven Advanced Serie bieten die absolut höchsten Schaltabstände ihrer Klasse. Dietz Sensortechnik bietet bündige kapazitive Sensoren wie z. B. M8 mit 2 mm Schaltabstand, M12 mit 6 mm Schaltabstand und M18 mit 12 mm Schaltabstand an. Nichtbündige Sensoren erreichen in der Bauform M30 bis zu 35 mm Schaltabstand.

CAPACITIVE - HIGHT TEMPERATURE

Capacitive **High Temperature** Series sensors have been designed for use in permanent environmental temperatures ranging between –25…+150°C (–13…302°F). The evaluation electronics of the sensors of the Capacitive High Temperature Series sensors fit into the identical housing as other capacitive sensors. The Capacitive High Temperature Series sensors are available in sizes ranging from M8 to M30 and are constructed with silicone or Teflon® (PTFE) cables. Silicone cable has an impressive flexibility which makes it a perfect choice for installations where the sensor permanently moves causing flex in the cable. Conversely, Teflon® has an excellent robustness and should be considered for installations where the sensor body is located on a stationary mount.

KAPAZITIV - HOCHTEMPERATUR

Induktive Hochtemperatur Sensoren wurden für den dauerhaften Einsatz bei Temperaturen von –25 bis + 150 °C (–13…356 °F) entwickelt. Die Hochtemperatur-Schaltungen passen in exakt die gleichen Gehäuse der anderen kapazitiven Sensorlinien von Dietz Sensortechnik. Kapazitive Hochtemperatur Sensoren sind in den Baugrößen M8 bis M30 erhältlich und sind wahlweise mit Silikon- oder Teflon® (PTFE) Anschlussleitungen ausgestattet. Silikonleitungen verfügen über eine beeindruckende Flexibilität, welche sie für Anwendungen mit bewegten Installationen prädestiniert. Im Gegensatz dazu hat Teflon® eine ausgezeichnete Widerstandsfähigkeit, sollte aber nur bei festen Installationen eingesetzt werden.

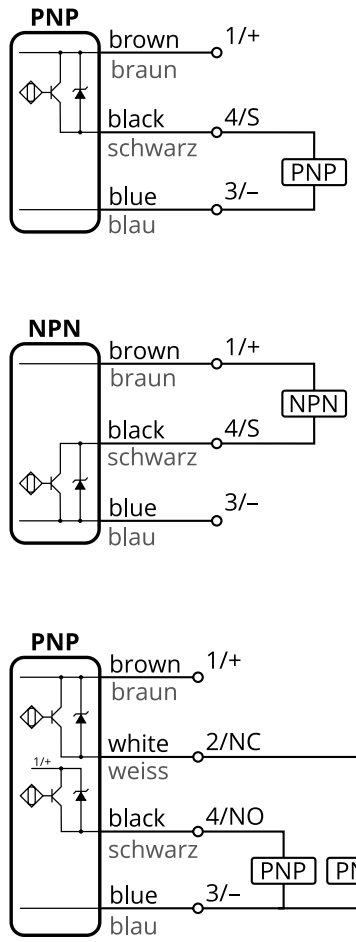
CHEMICAL RESISTANT

Numerous models from the range of capacitive sensors are as well available with housings made of PTFE including the front cap, using silicone cable connection. PTFE housings are very appropriate in food-processing and chemical industries. They are resistant to acid and caustic substances as well as to corrosive oils and fats.

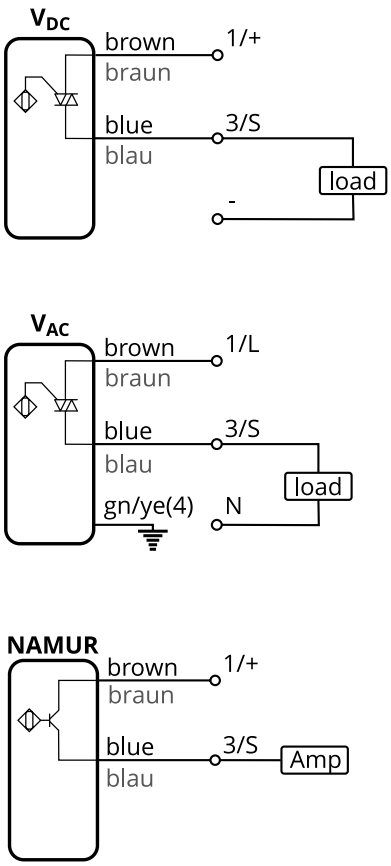
CHEMIKALIEN BESTÄNDIG

Zahlreiche Bauformen aus dem Sortiment der kapazitiven Sensoren sind als Besonderheit auch in Ausführungen mit Gehäusen aus PTFE erhältlich. Die Anschlussleitungen bestehen hierbei aus Silikon. Das Anwendungsspektrum lässt sich somit deutlich ausweiten, so z.B. in der Nahrungsmittelindustrie, in chemischen Anlagen sowie überall dort, wo eine Beständigkeit gegen Säuren, Laugen, aggressive Öle und Fette etc. verlangt wird.

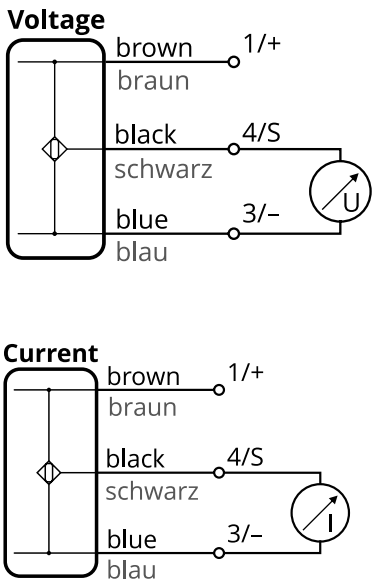
3-Wire and 4-Wire | 3- und 4-Leiter



2-wire | 2-Leiter

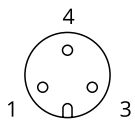


Analog Output | Analogausgang



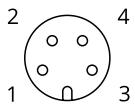
Pin Assignment | Pinzuordnung

M8 / 3



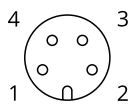
Color | Farbe		Pin
brown	braun	1
blue	blau	3
black	schwarz	4

M8 / 4



Color | Farbe		Pin
brown	braun	1
white	weiß	2
blue	blau	3
black	schwarz	4

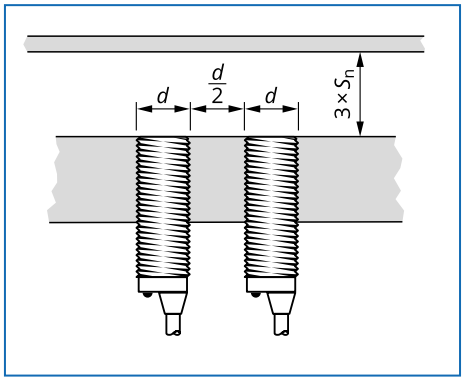
M12 / 4



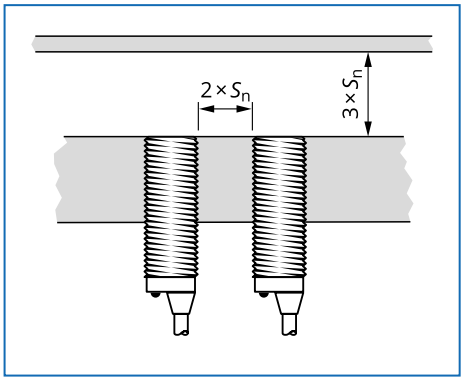
Color | Farbe		Pin
brown	braun	1
white	weiß	2
blue	blau	3
black	schwarz	4

Basic considerations – please contact us to get application related assistance
Grundsätzliche Auslegung – bitte kontaktieren Sie uns für applikationsspezifische Unterstützung

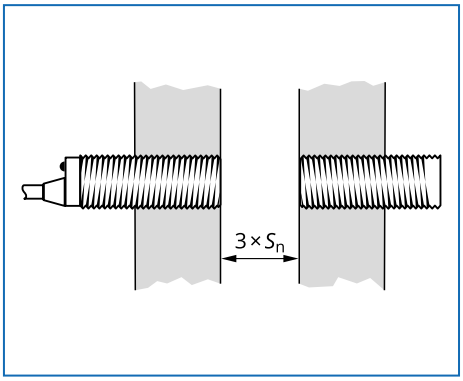
Standard
Standard



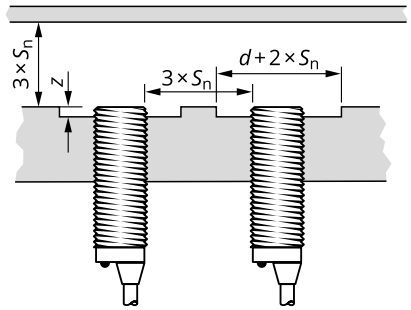
Increased
erhöht



Standard | Increased
Standard | erhöht

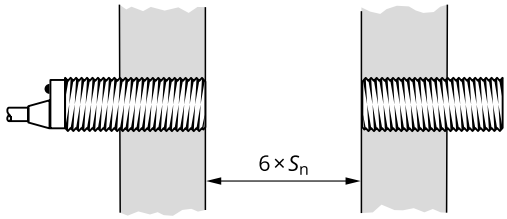


Extended | Advanced
erweitert | hochentwickelt

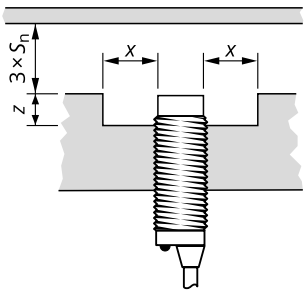


Diameter | Durchmesser	z (mm)
Ø6.5 / M8	1
M12	2
M18	4
M30	6.5

Extended | Advanced
erweitert | hochentwickelt

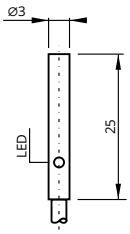
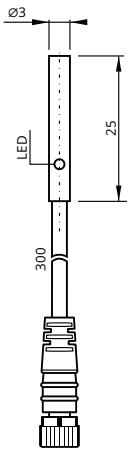
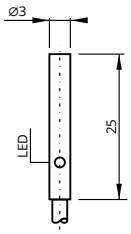


All Series | Unshielded
Alle Serien | nicht bündig

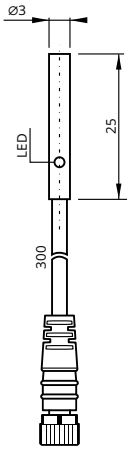
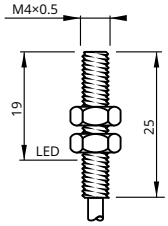
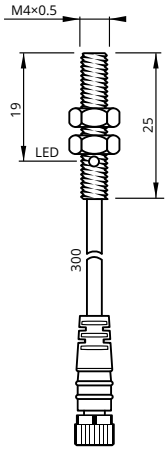
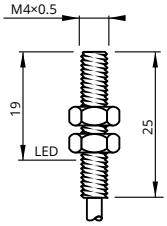
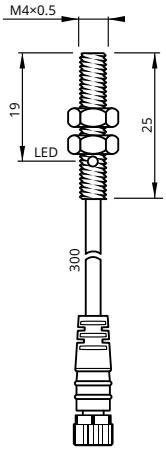


Diameter | Durchmesser	x (mm)	z (mm)
Ø6.5 / M8	8	8
M12	14	14
M18	20	24
M30	38	35

3-Wire Miniature
3-Leiter Miniatur

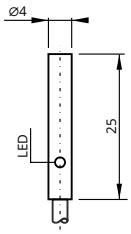
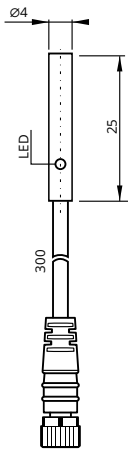
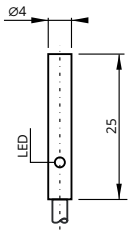
	shielded bündig **Ø 3 mm | 0.6 mm**	shielded bündig **Ø 3 mm | 0.6 mm**	shielded bündig **Ø 3 mm | 1.0 mm**
			
	standard	standard	increased erhöht
			

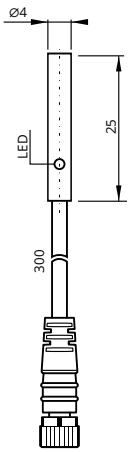
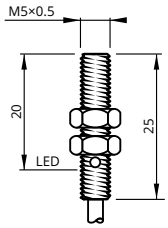
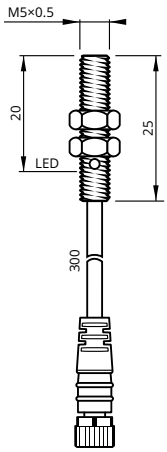
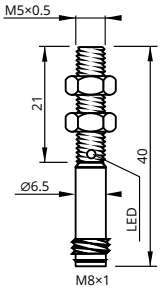
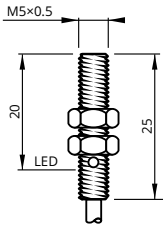
Sensing Distance	Schaltabstand	0.6 mm	0.6 mm	1.0 mm
Housing Size	Gehäusegröße	Ø 3 mm	Ø 3 mm	Ø 3 mm
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	2000 Hz	2000 Hz	2000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection	Anschluss	PUR, ultra-flex	PUR, 300 mm, M8	PUR, ultra-flex
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	INSD3S06PO25-A2P	INSD3S06PO25-3U8	INSD3S1PO25-A2P
Article Code PNP, NC	⎍	INSD3S06PC25-A2P	INSD3S06PC25-3U8	INSD3S1PC25-A2P
Article Code NPN, NO	⎍	INSD3S06NO25-A2P	INSD3S06NO25-3U8	INSD3S1NO25-A2P
Article Code NPN, NC	⎍	INSD3S06NC25-A2P	INSD3S06NC25-3U8	INSD3S1NC25-A2P

shielded bündig **Ø 3 mm | 1.0 mm**	shielded bündig **M4×0.5 | 0.6 mm**	shielded bündig **M4×0.5 | 0.6 mm**	shielded bündig **M4×0.5 | 1.0 mm**	shielded bündig **M4×0.5 | 1.0 mm**
				
increased erhöht	standard	standard	increased erhöht	increased erhöht
				
1.0 mm	0.6 mm	0.6 mm	1.0 mm	1.0 mm
Ø 3 mm	M4×0.5	M4×0.5	M4×0.5	M4×0.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
PUR, 300 mm, M8	PUR, ultra-flex	PUR, 300 mm, M8	PUR, ultra-flex	PUR, 300 mm, M8
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INSD3S1PO25-3U8	INS4S06PO25-A2P	INS4S06PO25-3U8	INS4S1PO25-A2P	INS4S1PO25-3U8
INSD3S1PC25-3U8	INS4S06PC25-A2P	INS4S06PC25-3U8	INS4S1PC25-A2P	INS4S1PC25-3U8
INSD3S1NO25-3U8	INS4S06NO25-A2P	INS4S06NO25-3U8	INS4S1NO25-A2P	INS4S1NO25-3U8
INSD3S1NC25-3U8	INS4S06NC25-A2P	INS4S06NC25-3U8	INS4S1NC25-A2P	INS4S1NC25-3U8

Minor changes possible
Geringfügige Änderungen möglich

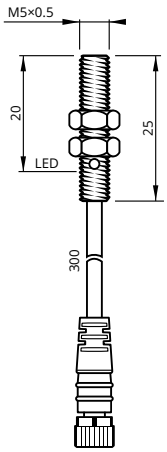
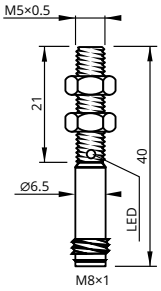
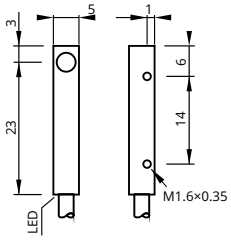
3-Wire Miniature
3-Leiter Miniatur

	shielded bündig **Ø 4 mm | 0.8 mm**	shielded bündig **Ø 4 mm | 0.8 mm**	shielded bündig **Ø 4 mm | 1.5 mm**
			
	standard	standard	increased erhöht
			
Sensing Distance / Schaltabstand	0.8 mm	0.8 mm	1.5 mm
Housing Size / Gehäusegröße	Ø 4 mm	Ø 4 mm	Ø 4 mm
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	2000 Hz	2000 Hz	2000 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection / Anschluss	PUR, ultra-flex	PUR, 300 mm, M8	PUR, ultra-flex
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	INSD4S08PO25-A2P	INSD4S08PO25-3U8	INSD4S1.5PO25-A2P
Article Code PNP, NC	INSD4S08PC25-A2P	INSD4S08PC25-3U8	INSD4S1.5PC25-A2P
Article Code NPN, NO	INSD4S08NO25-A2P	INSD4S08NO25-3U8	INSD4S1.5NO25-A2P
Article Code NPN, NC	INSD4S08NC25-A2P	INSD4S08NC25-3U8	INSD4S1.5NC25-A2P

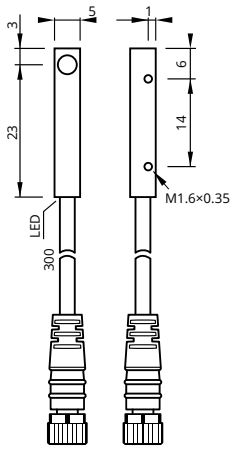
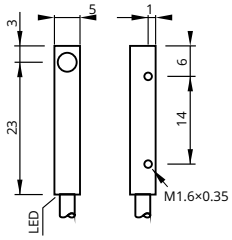
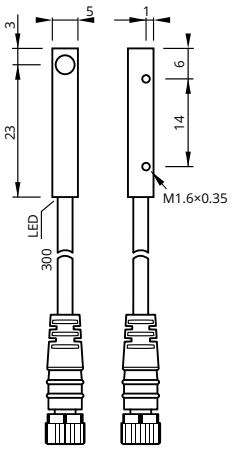
shielded bündig **Ø 4 mm | 1.5 mm**	shielded bündig **M5×0.5 | 0.8 mm**	shielded bündig **M5×0.5 | 0.8 mm**	shielded bündig **M5×0.5 | 0.8 mm**	shielded bündig **M5×0.5 | 1.5 mm**
				
increased erhöht	standard	standard	standard	increased erhöht
				
1.5 mm	0.8 mm	0.8 mm	0.8 mm	1.5 mm
Ø 4 mm	M5×0.5	M5×0.5	M5×0.5	M5×0.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
PUR, 300 mm, M8	PUR, ultra-flex	PUR, 300 mm, M8	PUR, 300 mm, M8	PUR, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INSD4S1.5PO25-3U8	INS5S08PO25-A2P	INS5S08PO25-3U8	INS5S08PO40-M8	INS5S1.5PO25-A2P
INSD4S1.5PC25-3U8	INS5S08PC25-A2P	INS5S08PC25-3U8	INS5S08PC40-M8	INS5S1.5PC25-A2P
INSD4S1.5NO25-3U8	INS5S08NO25-A2P	INS5S08NO25-3U8	INS5S08NO40-M8	INS5S1.5NO25-A2P
INSD4S1.5NC25-3U8	INS5S08NC25-A2P	INS5S08NC25-3U8	INS5S08NC40-M8	INS5S1.5NC25-A2P

Minor changes possible
Geringfügige Änderungen möglich

3-Wire Miniature
3-Leiter Miniatur

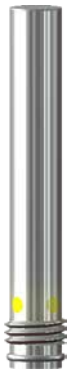
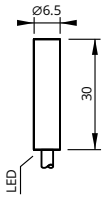
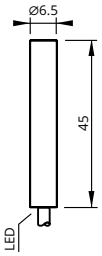
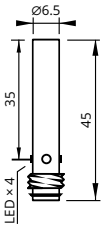
	shielded bündig **M5×0.5 | 1.5 mm**	shielded bündig **M5×0.5 | 1.5 mm**	shielded bündig **5 × 5 | 0.8 mm**
			
	increased erhöht	increased erhöht	standard
			

Sensing Distance	Schaltabstand	1.5 mm		1.5 mm		0.8 mm	
Housing Size	Gehäusegröße	M5×0.5		M5×0.5		5 × 5	
Operating Voltage	Betriebsspannung	10…30 V_{DC}		10…30 V_{DC}		10…30 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert	built-in	integriert	built-in	integriert
Current Consumption	Stromverbrauch	<8 mA		<8 mA		<8 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA		200 mA		200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in	integriert	built-in	integriert	built-in	integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA		<1.5 V @ 200 mA		<1.5 V @ 200 mA	
Switching Frequency	Schaltfrequenz	2000 Hz		2000 Hz		2000 Hz	
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85	
Repeatability	Wiederholgenauigkeit	<1 % (S_n)		<1 % (S_n)		<1 % (S_n)	
Hysteresis	Hysterese	3…15 %		3…15 %		3…15 %	
Operating Temperature	Betriebstemperatur	–25…+75 °C		–25…+75 °C		–25…+75 °C	
Protection Class	Schutzklasse	IP67		IP67		IP67	
Sensing Face	Sensorfläche	POM		POM		POM	
Housing Material	Gehäusewerkstoff	SS303	Edelstahl	SS303	Edelstahl	brass	Messing
Connection	Anschluss	PUR, 300 mm, M8		PUR, 300 mm, M8		PUR, ultra-flex	
Switching Indicator	Schaltanzeige	built-in	integriert	built-in	integriert	built-in	integriert
Article Code PNP, NO	⎍	INS5S1.5PO25-3U8		INS5S1.5PO40-M8		INS55S08PO26-A2P	
Article Code PNP, NC	⎍	INS5S1.5PC25-3U8		INS5S1.5PC40-M8		INS55S08PC26-A2P	
Article Code NPN, NO	⎍	INS5S1.5NO25-3U8		INS5S1.5NO40-M8		INS55S08NO26-A2P	
Article Code NPN, NC	⎍	INS5S1.5NC25-3U8		INS5S1.5NC40-M8		INS55S08NC26-A2P	

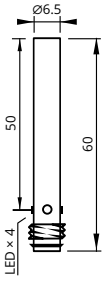
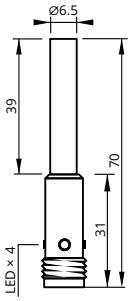
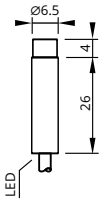
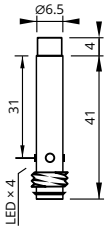
shielded bündig **5 × 5 | 0.8 mm**	shielded bündig **5 × 5 | 1.5 mm**	shielded bündig **5 × 5 | 1.5 mm**
		
standard	increased erhöht	increased erhöht
		
0.8 mm	1.5 mm	1.5 mm
5 × 5	5 × 5	5 × 5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
2000 Hz	2000 Hz	2000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67
POM	POM	POM
brass Messing	brass Messing	brass Messing
PUR, 300 mm, M8	PUR, ultra-flex	PUR, 300 mm, M8
built-in integriert	built-in integriert	built-in integriert
INS55S08PO26-3U8	INS55S1.5PO26-A2P	INS55S1.5PO26-3U8
INS55S08PC26-3U8	INS55S1.5PC26-A2P	INS55S1.5PC26-3U8
INS55S08NO26-3U8	INS55S1.5NO26-A2P	INS55S1.5NO26-3U8
INS55S08NC26-3U8	INS55S1.5NC26-A2P	INS55S1.5NC26-3U8

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

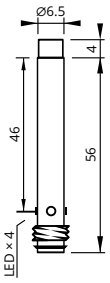
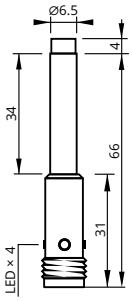
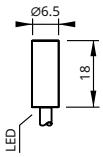
shielded bündig **Ø 6.5 mm | 1 mm**	shielded bündig **Ø 6.5 mm | 1 mm**	shielded bündig **Ø 6.5 mm | 1 mm**
		
standard	standard	standard
		

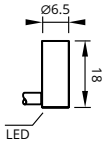
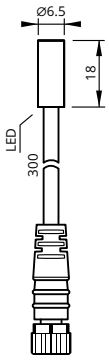
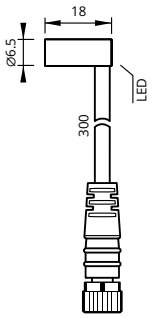
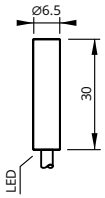
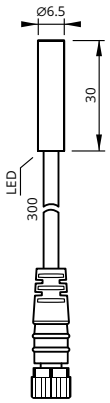
Sensing Distance	Schaltabstand	1 mm	1 mm	1 mm
Housing Size	Gehäusegröße	Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	2000 Hz	2000 Hz	2000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	SS303	SS303	SS303
Connection	Anschluss	PVC, ultra-flex	PVC, ultra-flex	conn. M8 Stecker M8
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	INSD6S1PO30-A2P	INSD6S1PO45-A2P	INSD6S1PO45-M8
Article Code PNP, NC	⎎	INSD6S1PC30-A2P	INSD6S1PC45-A2P	INSD6S1PC45-M8
Article Code PNP, NO+NC	⎍ + ⎎			
Article Code NPN, NO	⎍	INSD6S1NO30-A2P	INSD6S1NO45-A2P	INSD6S1NO45-M8
Article Code NPN, NC	⎎	INSD6S1NC30-A2P	INSD6S1NC45-A2P	INSD6S1NC45-M8
Article Code NPN, NO+NC	⎍ + ⎎			

shielded bündig **Ø 6.5 mm | 1 mm**	shielded bündig **Ø 6.5 mm | 1 mm**	unshielded nicht bündig **Ø 6.5 mm | 2 mm**	unshielded nicht bündig **Ø 6.5 mm | 2 mm**	unshielded nicht bündig **Ø 6.5 mm | 2 mm**
				
standard	standard	standard	standard	standard
				
1 mm	1 mm	2 mm	2 mm	2 mm
Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
SS303	SS303	SS303	SS303	SS303
conn. M8 Stecker M8	conn. M12 Stecker M12	PVC, ultra-flex	PVC, ultra-flex	conn. M8 Stecker M8
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INSD6S1PO60-M8	INSD6S1PO70-M12	INSD6N2PO30-A2P	INSD6N2PO45-A2P	INSD6N2PO45-M8
INSD6S1PC60-M8	INSD6S1PC70-M12	INSD6N2PC30-A2P	INSD6N2PC45-A2P	INSD6N2PC45-M8
INSD6S1NO60-M8	INSD6S1NO70-M12	INSD6N2NO30-A2P	INSD6N2NO45-A2P	INSD6N2NO45-M8
INSD6S1NC60-M8	INSD6S1NC70-M12	INSD6N2NC30-A2P	INSD6N2NC45-A2P	INSD6N2NC45-M8

Minor changes possible
Geringfügige Änderungen möglich

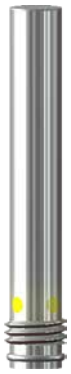
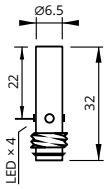
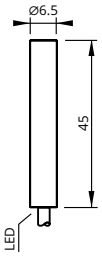
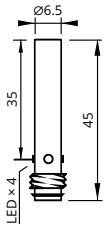
3-Wire
3-Leiter

	unshielded nicht bündig **Ø 6.5 mm | 2 mm**	unshielded nicht bündig **Ø 6.5 mm | 2 mm**	shielded bündig **Ø 6.5 mm | 2 mm**
			
	standard	standard	increased erhöht
			
Sensing Distance	Schaltabstand	2 mm	2 mm	2 mm
Housing Size	Gehäusegröße	Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	2000 Hz	2000 Hz	2000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	SS303	SS303	SS303
Connection	Anschluss	conn. M8 Stecker M8	conn. M12 Stecker M12	PVC, ultra-flex
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	INSD6N2PO60-M8	INSD6N2PO70-M12	INSD6S2PO18-A2P
Article Code PNP, NC	⎌	INSD6N2PC60-M8	INSD6N2PC70-M12	INSD6S2PC18-A2P
Article Code PNP, NO+NC	⎍ + ⎌			
Article Code NPN, NO	⎍	INSD6N2NO60-M8	INSD6N2NO70-M12	INSD6S2NO18-A2P
Article Code NPN, NC	⎌	INSD6N2NC60-M8	INSD6N2NC70-M12	INSD6S2NC18-A2P
Article Code NPN, NO+NC	⎍ + ⎌			

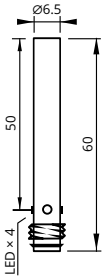
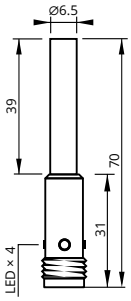
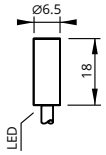
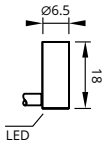
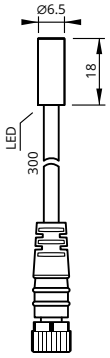
shielded bündig **Ø 6.5 mm | 2 mm**	shielded bündig **Ø 6.5 mm | 2 mm**	shielded bündig **Ø 6.5 mm | 2 mm**	shielded bündig **Ø 6.5 mm | 2 mm**	shielded bündig **Ø 6.5 mm | 2 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				
2 mm	2 mm	2 mm	2 mm	2 mm
Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
SS303	SS303	SS303	SS303	SS303
PVC, ultra-flex	PUR, 300 mm, M8	PUR, 300 mm, M8	PVC, ultra-flex	PUR, 300 mm, M8
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INSD6S2PO18-RA2P	INSD6S2PO18-3U8	INSD6S2PO18-R3U8	INSD6S2PO30-A2P	INSD6S2PO30-3U8
INSD6S2PC18-RA2P	INSD6S2PC18-3U8	INSD6S2PC18-R3U8	INSD6S2PC30-A2P	INSD6S2PC30-3U8
INSD6S2NO18-RA2P	INSD6S2NO18-3U8	INSD6S2NO18-R3U8	INSD6S2NO30-A2P	INSD6S2NO30-3U8
INSD6S2NC18-RA2P	INSD6S2NC18-3U8	INSD6S2NC18-R3U8	INSD6S2NC30-A2P	INSD6S2NC30-3U8

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

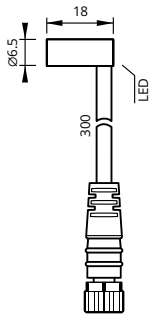
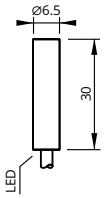
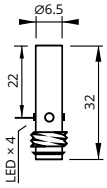
shielded bündig **Ø 6.5 mm | 2 mm**	shielded bündig **Ø 6.5 mm | 2 mm**	shielded bündig **Ø 6.5 mm | 2 mm**
		
increased erhöht	increased erhöht	increased erhöht
		

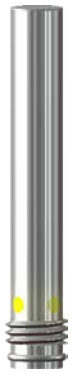
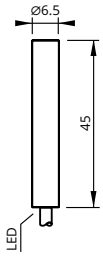
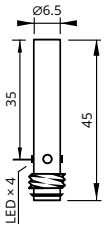
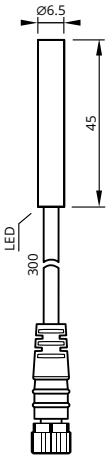
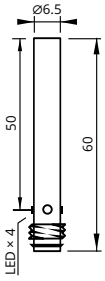
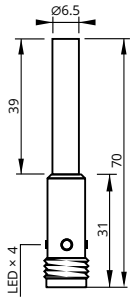
Sensing Distance	Schaltabstand	2 mm		2 mm		2 mm	
Housing Size	Gehäusegröße	Ø 6.5 mm		Ø 6.5 mm		Ø 6.5 mm	
Operating Voltage	Betriebsspannung	10…30 V_{DC}		10…30 V_{DC}		10…30 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert	built-in	integriert	built-in	integriert
Current Consumption	Stromverbrauch	<8 mA		<8 mA		<8 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA		200 mA		200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in	integriert	built-in	integriert	built-in	integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA		<1.5 V @ 200 mA		<1.5 V @ 200 mA	
Switching Frequency	Schaltfrequenz	2000 Hz		2000 Hz		2000 Hz	
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85	
Repeatability	Wiederholgenauigkeit	<1 % (S_n)		<1 % (S_n)		<1 % (S_n)	
Hysteresis	Hysterese	3…15 %		3…15 %		3…15 %	
Operating Temperature	Betriebstemperatur	–25…+75 °C		–25…+75 °C		–25…+75 °C	
Protection Class	Schutzklasse	IP67		IP67		IP67	
Sensing Face	Sensorfläche	POM		POM		POM	
Housing Material	Gehäusewerkstoff	SS303		SS303		SS303	
Connection	Anschluss	conn. M8	Stecker M8	PVC, ultra-flex		conn. M8	Stecker M8
Switching Indicator	Schaltanzeige	built-in	integriert	built-in	integriert	built-in	integriert
Article Code PNP, NO	⎍	INSD6S2PO32-M8		INSD6S2PO45-A2P		INSD6S2PO45-M8	
Article Code PNP, NC	⎌	INSD6S2PC32-M8		INSD6S2PC45-A2P		INSD6S2PC45-M8	
Article Code PNP, NO+NC	⎍ + ⎌						
Article Code NPN, NO	⎍	INSD6S2NO32-M8		INSD6S2NO45-A2P		INSD6S2NO45-M8	
Article Code NPN, NC	⎌	INSD6S2NC32-M8		INSD6S2NC45-A2P		INSD6S2NC45-M8	
Article Code NPN, NO+NC	⎍ + ⎌						

shielded bündig **Ø 6.5 mm | 2 mm**	shielded bündig **Ø 6.5 mm | 2 mm**	shielded bündig **Ø 6.5 mm | 3 mm**	shielded bündig **Ø 6.5 mm | 3 mm**	shielded bündig **Ø 6.5 mm | 3 mm**
				
increased erhöht	increased erhöht	extended erweitert	extended erweitert	extended erweitert
				
2 mm	2 mm	3 mm	3 mm	3 mm
Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
2000 Hz	2000 Hz	1000 Hz	1000 Hz	1000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
SS303	SS303	SS303	SS303	SS303
conn. M8 Stecker M8	conn. M12 Stecker M12	PVC, ultra-flex	PVC, ultra-flex	PUR, 300 mm, M8
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INSD6S2PO60-M8	INSD6S2PO70-M12	INSD6S3PO18-A2P	INSD6S3PO18-RA2P	INSD6S3PO18-3U8
INSD6S2PC60-M8	INSD6S2PC70-M12	INSD6S3PC18-A2P	INSD6S3PC18-RA2P	INSD6S3PC18-3U8
INSD6S2NO60-M8	INSD6S2NO70-M12	INSD6S3NO18-A2P	INSD6S3NO18-RA2P	INSD6S3NO18-3U8
INSD6S2NC60-M8	INSD6S2NC70-M12	INSD6S3NC18-A2P	INSD6S3NC18-RA2P	INSD6S3NC18-3U8

Minor changes possible
Geringfügige Änderungen möglich

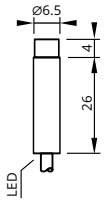
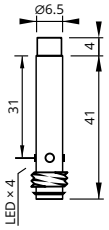
3-Wire
3-Leiter

	shielded bündig **Ø 6.5 mm | 3 mm**	shielded bündig **Ø 6.5 mm | 3 mm**	shielded bündig **Ø 6.5 mm | 3 mm**
			
	extended erweitert	extended erweitert	extended erweitert
			
Sensing Distance	Schaltabstand	3 mm	3 mm	3 mm
Housing Size	Gehäusegröße	Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	1000 Hz	1000 Hz	1000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	SS303	SS303	SS303
Connection	Anschluss	PUR, 300 mm, M8	PVC, ultra-flex	conn. M8 Stecker M8
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	INSD6S3PO18-R3U8	INSD6S3PO30-A2P	INSD6S3PO32-M8
Article Code PNP, NC	⎎	INSD6S3PC18-R3U8	INSD6S3PC30-A2P	INSD6S3PC32-M8
Article Code PNP, NO+NC	⎍ + ⎎			
Article Code NPN, NO	⎍	INSD6S3NO18-R3U8	INSD6S3NO30-A2P	INSD6S3NO32-M8
Article Code NPN, NC	⎎	INSD6S3NC18-R3U8	INSD6S3NC30-A2P	INSD6S3NC32-M8
Article Code NPN, NO+NC	⎍ + ⎎			

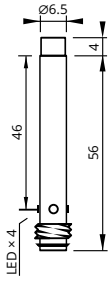
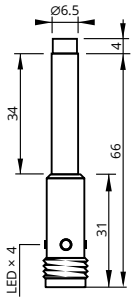
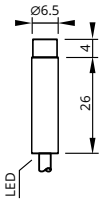
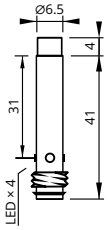
shielded bündig **Ø 6.5 mm | 3 mm**	shielded bündig **Ø 6.5 mm | 3 mm**	shielded bündig **Ø 6.5 mm | 3 mm**	shielded bündig **Ø 6.5 mm | 3 mm**	shielded bündig **Ø 6.5 mm | 3 mm**
				
extended erweitert	extended erweitert	extended erweitert	extended erweitert	extended erweitert
				
3 mm	3 mm	3 mm	3 mm	3 mm
Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
1000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
SS303	SS303	SS303	SS303	SS303
PVC, ultra-flex	conn. M8 Stecker M8	PVC, ultra-flex	conn. M8 Stecker M8	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INSD6S3PO45-A2P	INSD6S3PO45-M8	INSD6S3PO45-3U8	INSD6S3PO60-M8	INSD6S3PO70-M12
INSD6S3PC45-A2P	INSD6S3PC45-M8	INSD6S3PC45-3U8	INSD6S3PC60-M8	INSD6S3PC70-M12
INSD6S3NO45-A2P	INSD6S3NO45-M8	INSD6S3NO45-3U8	INSD6S3NO60-M8	INSD6S3NO70-M12
INSD6S3NC45-A2P	INSD6S3NC45-M8	INSD6S3NC45-3U8	INSD6S3NC60-M8	INSD6S3NC70-M12

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

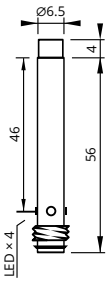
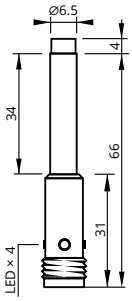
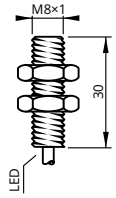
unshielded nicht bündig **Ø 6.5 mm | 4 mm**	unshielded nicht bündig **Ø 6.5 mm | 4 mm**	unshielded nicht bündig **Ø 6.5 mm | 4 mm**
		
increased erhöht	increased erhöht	increased erhöht
		

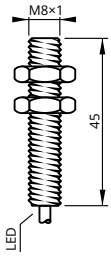
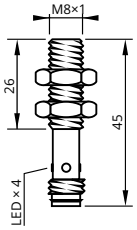
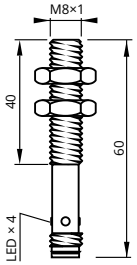
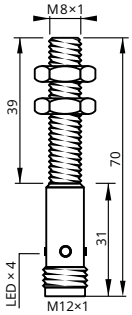
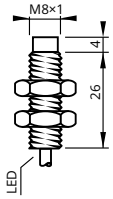
Sensing Distance	Schaltabstand	4 mm	4 mm	4 mm
Housing Size	Gehäusegröße	Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	1000 Hz	1000 Hz	1000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	SS303	SS303	SS303
Connection	Anschluss	PVC, ultra-flex	PVC, ultra-flex	conn. M8 Stecker M8
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	INSD6N4PO30-A2P	INSD6N4PO45-A2P	INSD6N4PO45-M8
Article Code PNP, NC	⎌	INSD6N4PC30-A2P	INSD6N4PC45-A2P	INSD6N4PC45-M8
Article Code PNP, NO+NC	⎍ + ⎌			
Article Code NPN, NO	⎍	INSD6N4NO30-A2P	INSD6N4NO45-A2P	INSD6N4NO45-M8
Article Code NPN, NC	⎌	INSD6N4NC30-A2P	INSD6N4NC45-A2P	INSD6N4NC45-M8
Article Code NPN, NO+NC	⎍ + ⎌			

unshielded nicht bündig **Ø 6.5 mm | 4 mm**	unshielded nicht bündig **Ø 6.5 mm | 4 mm**	unshielded nicht bündig **Ø 6.5 mm | 6 mm**	unshielded nicht bündig **Ø 6.5 mm | 6 mm**	unshielded nicht bündig **Ø 6.5 mm | 6 mm**
				
increased erhöht	increased erhöht	extended erweitert	extended erweitert	extended erweitert
				
4 mm	4 mm	6 mm	6 mm	6 mm
Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
1000 Hz	1000 Hz	500 Hz	500 Hz	500 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
SS303	SS303	SS303	SS303	SS303
conn. M8 Stecker M8	conn. M12 Stecker M12	PVC, ultra-flex	PVC, ultra-flex	conn. M8 Stecker M8
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INSD6N4PO60-M8	INSD6N4PO70-M12	INSD6N6PO30-A2P	INSD6N6PO45-A2P	INSD6N6PO45-M8
INSD6N4PC60-M8	INSD6N4PC70-M12	INSD6N6PC30-A2P	INSD6N6PC45-A2P	INSD6N6PC45-M8
INSD6N4NO60-M8	INSD6N4NO70-M12	INSD6N6NO30-A2P	INSD6N6NO45-A2P	INSD6N6NO45-M8
INSD6N4NC60-M8	INSD6N4NC70-M12	INSD6N6NC30-A2P	INSD6N6NC45-A2P	INSD6N6NC45-M8

Minor changes possible
Geringfügige Änderungen möglich

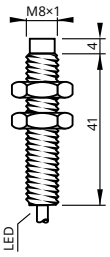
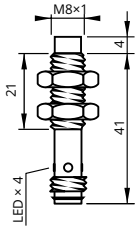
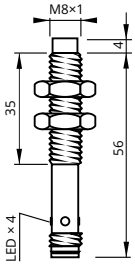
3-Wire
3-Leiter

	unshielded nicht bündig **Ø 6.5 mm | 6 mm**	unshielded nicht bündig **Ø 6.5 mm | 6 mm**	shielded bündig **M8×1 | 1 mm**
			
	extended erweitert	extended erweitert	standard
			
Sensing Distance	Schaltabstand	6 mm	6 mm	1 mm
Housing Size	Gehäusegröße	Ø 6.5 mm	Ø 6.5 mm	M8×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	500 Hz	500 Hz	2000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	SS303	SS303	SS303
Connection	Anschluss	conn. M8 Stecker M8	conn. M12 Stecker M12	PVC, ultra-flex
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	INSD6N6PO60-M8	INSD6N6PO70-M12	INS8S1PO30-A2P
Article Code PNP, NC	⎌	INSD6N6PC60-M8	INSD6N6PC70-M12	INS8S1PC30-A2P
Article Code PNP, NO+NC	⎍ + ⎌			
Article Code NPN, NO	⎍	INSD6N6NO60-M8	INSD6N6NO70-M12	INS8S1NO30-A2P
Article Code NPN, NC	⎌	INSD6N6NC60-M8	INSD6N6NC70-M12	INS8S1NC30-A2P
Article Code NPN, NO+NC	⎍ + ⎌			

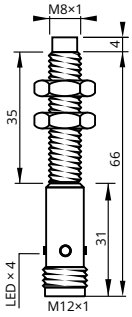
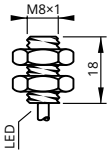
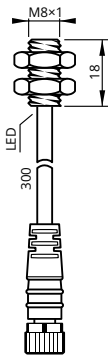
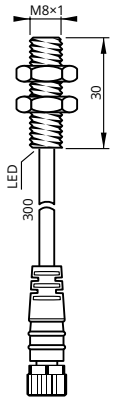
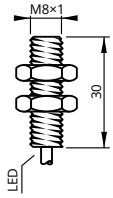
shielded bündig **M8×1 | 1 mm**	shielded bündig **M8×1 | 1 mm**	shielded bündig **M8×1 | 1 mm**	shielded bündig **M8×1 | 1 mm**	unshielded nicht bündig **M8×1 | 2 mm**
				
standard	standard	standard	standard	standard
				
1 mm	1 mm	1 mm	1 mm	2 mm
M8×1	M8×1	M8×1	M8×1	M8×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
SS303	SS303	SS303	SS303	SS303
PVC, ultra-flex	conn. M8 Stecker M8	conn. M8 Stecker M8	conn. M12 Stecker M12	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS8S1PO45-A2P	INS8S1PO45-M8	INS8S1PO60-M8	INS8S1PO70-M12	INS8N2PO30-A2P
INS8S1PC45-A2P	INS8S1PC45-M8	INS8S1PC60-M8	INS8S1PC70-M12	INS8N2PC30-A2P
INS8S1NO45-A2P	INS8S1NO45-M8	INS8S1NO60-M8	INS8S1NO70-M12	INS8N2NO30-A2P
INS8S1NC45-A2P	INS8S1NC45-M8	INS8S1NC60-M8	INS8S1NC70-M12	INS8N2NC30-A2P

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

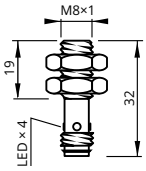
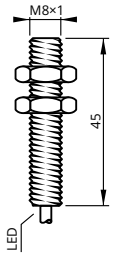
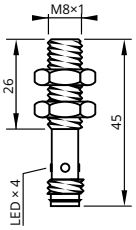
	unshielded nicht bündig **M8×1 | 2 mm**	unshielded nicht bündig **M8×1 | 2 mm**	unshielded nicht bündig **M8×1 | 2 mm**
			
	standard	standard	standard
			

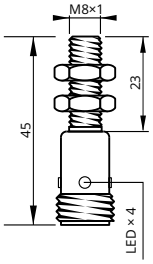
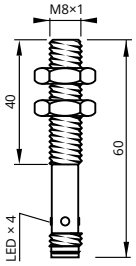
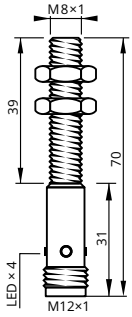
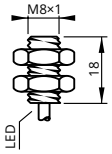
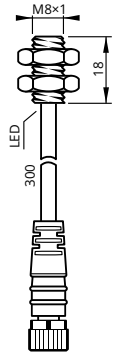
Sensing Distance	Schaltabstand	2 mm	2 mm	2 mm
Housing Size	Gehäusegröße	M8×1	M8×1	M8×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	2000 Hz	2000 Hz	2000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	SS303	SS303	SS303
Connection	Anschluss	PVC, ultra-flex	conn. M8 Stecker M8	conn. M8 Stecker M8
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	INS8N2PO45-A2P	INS8N2PO45-M8	INS8N2PO60-M8
Article Code PNP, NC	⎎	INS8N2PC45-A2P	INS8N2PC45-M8	INS8N2PC60-M8
Article Code PNP, NO+NC	⎍ + ⎎			
Article Code NPN, NO	⎍	INS8N2NO45-A2P	INS8N2NO45-M8	INS8N2NO60-M8
Article Code NPN, NC	⎎	INS8N2NC45-A2P	INS8N2NC45-M8	INS8N2NC60-M8
Article Code NPN, NO+NC	⎍ + ⎎			

unshielded nicht bündig **M8×1 | 2 mm**	shielded bündig **M8×1 | 2 mm**	shielded bündig **M8×1 | 2 mm**	shielded bündig **M8×1 | 2 mm**	shielded bündig **M8×1 | 2 mm**
				
standard	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				
2 mm	2 mm	2 mm	2 mm	2 mm
M8×1	M8×1	M8×1	M8×1	M8×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
SS303	SS303	SS303	SS303	SS303
conn. M12 Stecker M12	PVC, ultra-flex	PUR, 300 mm, M8	PUR, 300 mm, M8	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS8N2PO70-M12	INS8S2PO18-A2P	INS8S2PO18-3U8	INS8S2PO30-3U8	INS8S2PO30-A2P
INS8N2PC70-M12	INS8S2PC18-A2P	INS8S2PC18-3U8	INS8S2PC30-3U8	INS8S2PC30-A2P
INS8N2NO70-M12	INS8S2NO18-A2P	INS8S2NO18-3U8	INS8S2NO30-3U8	INS8S2NO30-A2P
INS8N2NC70-M12	INS8S2NC18-A2P	INS8S2NC18-3U8	INS8S2NC30-3U8	INS8S2NC30-A2P

Minor changes possible
Geringfügige Änderungen möglich

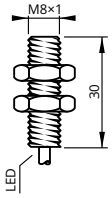
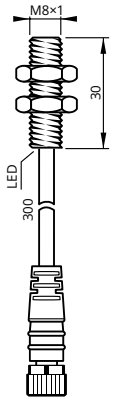
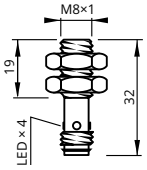
3-Wire
3-Leiter

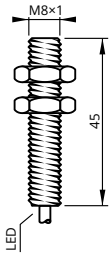
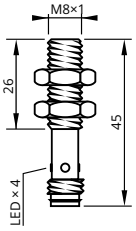
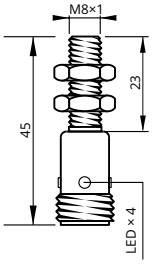
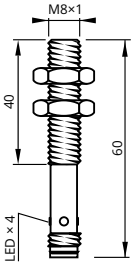
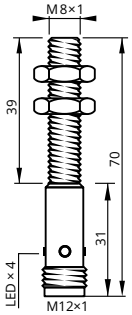
	shielded bündig **M8×1 | 2 mm**	shielded bündig **M8×1 | 2 mm**	shielded bündig **M8×1 | 2 mm**
			
	increased erhöht	increased erhöht	increased erhöht
			
Sensing Distance / Schaltabstand	2 mm	2 mm	2 mm
Housing Size / Gehäusegröße	M8×1	M8×1	M8×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	2000 Hz	2000 Hz	2000 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	SS303	SS303	SS303
Connection / Anschluss	conn. M8 Stecker M8	PVC, ultra-flex	conn. M8 Stecker M8
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	INS8S2PO32-M8	INS8S2PO45-A2P	INS8S2PO45-M8
Article Code PNP, NC	INS8S2PC32-M8	INS8S2PC45-A2P	INS8S2PC45-M8
Article Code PNP, NO+NC		INS8S2PCO45-A2P	
Article Code NPN, NO	INS8S2NO32-M8	INS8S2NO45-A2P	INS8S2NO45-M8
Article Code NPN, NC	INS8S2NC32-M8	INS8S2NC45-A2P	INS8S2NC45-M8
Article Code NPN, NO+NC		INS8S2NCO45-A2P	

shielded bündig **M8×1 | 2 mm**	shielded bündig **M8×1 | 2 mm**	shielded bündig **M8×1 | 2 mm**	semi-shielded quasi-bündig **M8×1 | 3 mm**	semi-shielded quasi-bündig **M8×1 | 3 mm**
				
increased erhöht	increased erhöht	increased erhöht	extended erweitert	extended erweitert
				
2 mm	2 mm	2 mm	3 mm	3 mm
M8×1	M8×1	M8×1	M8×1	M8×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
2000 Hz	2000 Hz	2000 Hz	1000 Hz	1000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
SS303	SS303	SS303	SS303	SS303
conn. M12 Stecker M12	conn. M8 Stecker M8	conn. M12 Stecker M12	PVC, ultra-flex	PUR, 300 mm, M8
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS8S2PO45-M12	INS8S2PO60-M8	INS8S2PO70-M12	INS8S3PO18-A2P	INS8S3PO18-3U8
INS8S2PC45-M12	INS8S2PC60-M8	INS8S2PC70-M12	INS8S3PC18-A2P	INS8S3PC18-3U8
	INS8S2PCO60-M8	INS8S2PCO70-M12		
INS8S2NO45-M12	INS8S2NO60-M8	INS8S2NO70-M12	INS8S3NO18-A2P	INS8S3NO18-3U8
INS8S2NC45-M12	INS8S2NC60-M8	INS8S2NC70-M12	INS8S3NC18-A2P	INS8S3NC18-3U8
	INS8S2NCO60-M8	INS8S2NCO70-M12		

Minor changes possible
Geringfügige Änderungen möglich

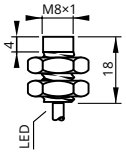
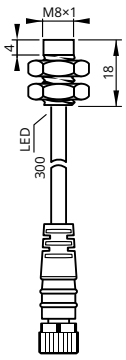
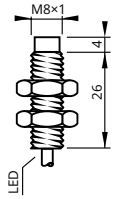
3-Wire
3-Leiter

	semi-shielded quasi-bündig **M8×1 | 3 mm**	semi-shielded quasi-bündig **M8×1 | 3 mm**	semi-shielded quasi-bündig **M8×1 | 3 mm**
			
	extended erweitert	extended erweitert	extended erweitert
			
Sensing Distance	Schaltabstand	3 mm	3 mm	3 mm
Housing Size	Gehäusegröße	M8×1	M8×1	M8×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	1000 Hz	1000 Hz	1000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	SS303	SS303	SS303
Connection	Anschluss	PVC, ultra-flex	PVC, ultra-flex	conn. M8 Stecker M8
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	INS8S3PO30-A2P	INS8S3PO30-3U8	INS8S3PO32-M8
Article Code PNP, NC	⎎	INS8S3PC30-A2P	INS8S3PC30-3U8	INS8S3PC32-M8
Article Code PNP, NO+NC	⎍ + ⎎			
Article Code NPN, NO	⎍	INS8S3NO30-A2P	INS8S3NO30-3U8	INS8S3NO32-M8
Article Code NPN, NC	⎎	INS8S3NC30-A2P	INS8S3NC30-3U8	INS8S3NC32-M8
Article Code NPN, NO+NC	⎍ + ⎎			

semi-shielded quasi-bündig **M8×1 | 3 mm**	semi-shielded quasi-bündig **M8×1 | 3 mm**	semi-shielded quasi-bündig **M8×1 | 3 mm**	semi-shielded quasi-bündig **M8×1 | 3 mm**	semi-shielded quasi-bündig **M8×1 | 3 mm**
				
extended erweitert	extended erweitert	extended erweitert	extended erweitert	extended erweitert
				
3 mm	3 mm	3 mm	3 mm	3 mm
M8×1	M8×1	M8×1	M8×1	M8×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
1000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
SS303	SS303	SS303	SS303	SS303
PVC, ultra-flex	conn. M8 Stecker M8	conn. M12 Stecker M12	conn. M8 Stecker M8	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS8S3PO45-A2P	INS8S3PO45-M8	INS8S3PO45-M12	INS8S3PO60-M8	INS8S3PO70-M12
INS8S3PC45-A2P	INS8S3PC45-M8	INS8S3PC45-M12	INS8S3PC60-M8	INS8S3PC70-M12
INS8S3NO45-A2P	INS8S3NO45-M8	INS8S3NO45-M12	INS8S3NO60-M8	INS8S3NO70-M12
INS8S3NC45-A2P	INS8S3NC45-M8	INS8S3NC45-M12	INS8S3NC60-M8	INS8S3NC70-M12

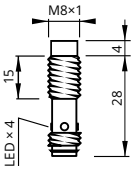
Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

	unshielded nicht bündig **M8×1 | 4 mm**	unshielded nicht bündig **M8×1 | 4 mm**	unshielded nicht bündig **M8×1 | 4 mm**
			
	increased erhöht	increased erhöht	increased erhöht
			
Sensing Distance / Schaltabstand	4 mm	4 mm	4 mm
Housing Size / Gehäusegröße	M8×1	M8×1	M8×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	1000 Hz	1000 Hz	1000 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	SS303	SS303	SS303
Connection / Anschluss	PVC, ultra-flex	PUR, 300 mm, M8	PVC, ultra-flex
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO / —/—	INS8N4PO18-A2P	INS8N4PO18-3U8	INS8N4PO30-A2P
Article Code PNP, NC / —⊀—	INS8N4PC18-A2P	INS8N4PC18-3U8	INS8N4PC30-A2P
Article Code PNP, NO+NC / —/— + —⊀—			
Article Code NPN, NO / —/—	INS8N4NO18-A2P	INS8N4NO18-3U8	INS8N4NO30-A2P
Article Code NPN, NC / —⊀—	INS8N4NC18-A2P	INS8N4NC18-3U8	INS8N4NC30-A2P
Article Code NPN, NO+NC / —/— + —⊀—			

unshielded
nicht bündig
M8×1 | 4 mm

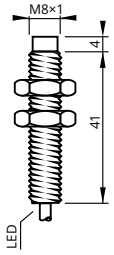
increased
erhöht



4 mm	
M8×1	
10…30 V_{DC}	
built-in	integriert
<8 mA	
200 mA	
built-in	integriert
<1.5 V @ 200 mA	
2000 Hz	
Alu 0.45 · Brs 0.50 · VA 0.85	
<1 % (S_n)	
3…15 %	
–25…+75 °C	
IP67	
SS303	Edelstahl
SS303	
conn. M8	Stecker M8
built-in	integriert
INS8N4PO32-M8	
INS8N4PC32-M8	
INS8N4NO32-M8	
INS8N4NC32-M8	

unshielded
nicht bündig
M8×1 | 4 mm

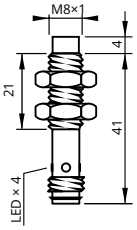
increased
erhöht



4 mm	
M8×1	
10…30 V_{DC}	
built-in	integriert
<8 mA	
200 mA	
built-in	integriert
<1.5 V @ 200 mA	
1000 Hz	
Alu 0.45 · Brs 0.50 · VA 0.85	
<1 % (S_n)	
3…15 %	
–25…+75 °C	
IP67	
SS303	Edelstahl
SS303	
PVC, ultra-flex	
built-in	integriert
INS8N4PO45-A2P	
INS8N4PC45-A2P	
INS8N4NO45-A2P	
INS8N4NC45-A2P	

unshielded
nicht bündig
M8×1 | 4 mm

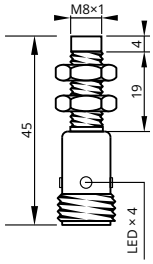
increased
erhöht



4 mm	
M8×1	
10…30 V_{DC}	
built-in	integriert
<8 mA	
200 mA	
built-in	integriert
<1.5 V @ 200 mA	
1000 Hz	
Alu 0.45 · Brs 0.50 · VA 0.85	
<1 % (S_n)	
3…15 %	
–25…+75 °C	
IP67	
SS303	Edelstahl
SS303	
conn. M8	Stecker M8
built-in	integriert
INS8N4PO45-M8	
INS8N4PC45-M8	
INS8N4NO45-M8	
INS8N4NC45-M8	

unshielded
nicht bündig
M8×1 | 4 mm

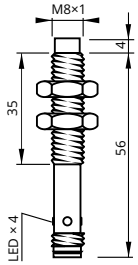
increased
erhöht



4 mm	
M8×1	
10…30 V_{DC}	
built-in	integriert
<8 mA	
200 mA	
built-in	integriert
<1.5 V @ 200 mA	
1000 Hz	
Alu 0.45 · Brs 0.50 · VA 0.85	
<1 % (S_n)	
3…15 %	
–25…+75 °C	
IP67	
SS303	Edelstahl
SS303	
conn. M12	Stecker M12
built-in	integriert
INS8N4PO45-M12	
INS8N4PC45-M12	
INS8N4NO45-M12	
INS8N4NC45-M12	

unshielded
nicht bündig
M8×1 | 4 mm

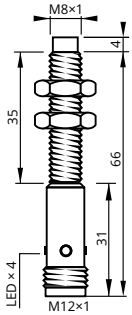
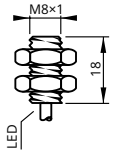
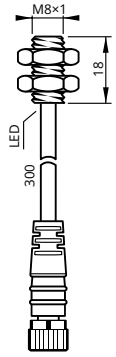
increased
erhöht

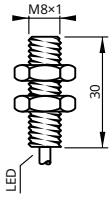
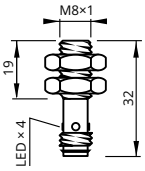
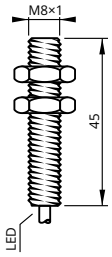
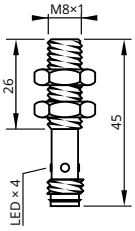
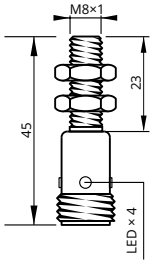


4 mm	
M8×1	
10…30 V_{DC}	
built-in	integriert
<8 mA	
200 mA	
built-in	integriert
<1.5 V @ 200 mA	
1000 Hz	
Alu 0.45 · Brs 0.50 · VA 0.85	
<1 % (S_n)	
3…15 %	
–25…+75 °C	
IP67	
SS303	Edelstahl
SS303	
conn. M8	Stecker M8
built-in	integriert
INS8N4PO60-M8	
INS8N4PC60-M8	
INS8N4NO60-M8	
INS8N4NC60-M8	

Minor changes possible
Geringfügige Änderungen möglich

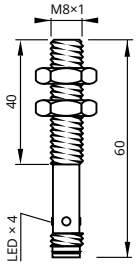
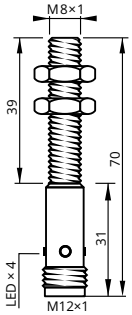
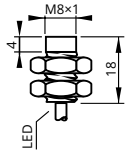
3-Wire
3-Leiter

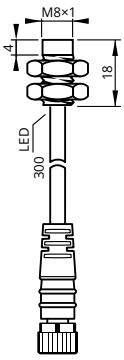
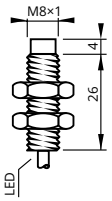
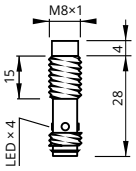
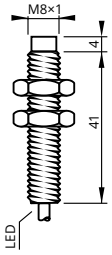
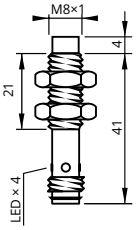
	unshielded nicht bündig **M8×1 | 4 mm**	semi-shielded quasi-bündig **M8×1 | 4 mm**	semi-shielded quasi-bündig **M8×1 | 4 mm**
			
	increased erhöht	advanced hochentwickelt	advanced hochentwickelt
			
Sensing Distance / Schaltabstand	4 mm	4 mm	4 mm
Housing Size / Gehäusegröße	M8×1	M8×1	M8×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	1000 Hz	500 Hz	500 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	SS303 Edelstahl	POM	POM
Housing Material / Gehäusewerkstoff	SS303	brass	brass
Connection / Anschluss	conn. M12 Stecker M12	PVC, ultra-flex	PUR, 300 mm, M8
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍⎍	INS8N4PO70-M12	INS8S4PO18-A2P	INS8S4PO18-3U8
Article Code PNP, NC	⎍⎌	INS8N4PC70-M12	INS8S4PC18-A2P	INS8S4PC18-3U8
Article Code PNP, NO+NC	⎍⎍ + ⎍⎌			
Article Code NPN, NO	⎍⎍	INS8N4NO70-M12	INS8S4NO18-A2P	INS8S4NO18-3U8
Article Code NPN, NC	⎍⎌	INS8N4NC70-M12	INS8S4NC18-A2P	INS8S4NC18-3U8
Article Code NPN, NO+NC	⎍⎍ + ⎍⎌			

semi-shielded quasi-bündig **M8×1 | 4 mm**	semi-shielded quasi-bündig **M8×1 | 4 mm**	semi-shielded quasi-bündig **M8×1 | 4 mm**	semi-shielded quasi-bündig **M8×1 | 4 mm**	semi-shielded quasi-bündig **M8×1 | 4 mm**
				
advanced hochentwickelt	advanced hochentwickelt	advanced hochentwickelt	advanced hochentwickelt	advanced hochentwickelt
				
4 mm	4 mm	4 mm	4 mm	4 mm
M8×1	M8×1	M8×1	M8×1	M8×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
500 Hz	500 Hz	500 Hz	500 Hz	500 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass	brass	brass	brass	brass
PVC, ultra-flex	conn. M8 Stecker M8	PVC, ultra-flex	conn. M8 Stecker M8	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS8S4PO30-A2P	INS8S4PO32-M8	INS8S4PO45-A2P	INS8S4PO45-M8	INS8S4PO45-M12
INS8S4PC30-A2P	INS8S4PC32-M8	INS8S4PC45-A2P	INS8S4PC45-M8	INS8S4PC45-M12
INS8S4NO30-A2P	INS8S4NO32-M8	INS8S4NO45-A2P	INS8S4NO45-M8	INS8S4NO45-M12
INS8S4NC30-A2P	INS8S4NC32-M8	INS8S4NC45-A2P	INS8S4NC45-M8	INS8S4NC45-M12

Minor changes possible
Geringfügige Änderungen möglich

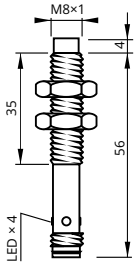
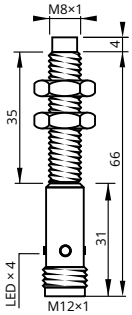
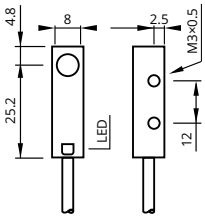
3-Wire
3-Leiter

	semi-shielded quasi-bündig **M8×1 | 4 mm**	semi-shielded quasi-bündig **M8×1 | 4 mm**	unshielded nicht bündig **M8×1 | 4 mm**
			
	advanced hochentwickelt	advanced hochentwickelt	extended erweitert
			
Sensing Distance	Schaltabstand	4 mm	4 mm	4 mm
Housing Size	Gehäusegröße	M8×1	M8×1	M8×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	500 Hz	500 Hz	500 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	brass	brass	brass
Connection	Anschluss	conn. M8 Stecker M8	conn. M12 Stecker M12	PVC, ultra-flex
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	INS8S4PO60-M8	INS8S4PO70-M12	INS8N6PO18-A2P
Article Code PNP, NC	⎌	INS8S4PC60-M8	INS8S4PC70-M12	INS8N6PC18-A2P
Article Code PNP, NO+NC	⎍ + ⎌			
Article Code NPN, NO	⎍	INS8S4NO60-M8	INS8S4NO70-M12	INS8N6NO18-A2P
Article Code NPN, NC	⎌	INS8S4NC60-M8	INS8S4NC70-M12	INS8N6NC18-A2P
Article Code NPN, NO+NC	⎍ + ⎌			

unshielded nicht bündig **M8×1 | 4 mm**	unshielded nicht bündig **M8×1 | 6 mm**	unshielded nicht bündig **M8×1 | 4 mm**	unshielded nicht bündig **M8×1 | 6 mm**	unshielded nicht bündig **M8×1 | 6 mm**
				
extended erweitert	extended erweitert	extended erweitert	extended erweitert	extended erweitert
				
4 mm	6 mm	4 mm	6 mm	6 mm
M8×1	M8×1	M8×1	M8×1	M8×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
500 Hz	500 Hz	500 Hz	500 Hz	500 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass	brass	brass	brass	brass
PUR, 300 mm, M8	PVC, ultra-flex	conn. M8 Stecker M8	PVC, ultra-flex	conn. M8 Stecker M8
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS8N6PO18-3U8	INS8N6PO30-A2P	INS8N6PO32-M8	INS8N6PO45-A2P	INS8N6PO45-M8
INS8N6PC18-3U8	INS8N6PC30-A2P	INS8N6PC32-M8	INS8N6PC45-A2P	INS8N6PC45-M8
INS8N6NO18-3U8	INS8N6NO30-A2P	INS8N6NO32-M8	INS8N6NO45-A2P	INS8N6NO45-M8
INS8N6NC18-3U8	INS8N6NC30-A2P	INS8N6NC32-M8	INS8N6NC45-A2P	INS8N6NC45-M8

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

	unshielded nicht bündig **M8×1 | 6 mm**	unshielded nicht bündig **M8×1 | 6 mm**	shielded bündig **8 × 8 | 2 mm**
			
	extended erweitert	extended erweitert	increased erhöht
			

Sensing Distance	Schaltabstand	6 mm	6 mm	2 mm
Housing Size	Gehäusegröße	M8×1	M8×1	8 × 8
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	500 Hz	500 Hz	1000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	brass	brass	brass
Connection	Anschluss	conn. M8 Stecker M8	conn. M12 Stecker M12	PVC, ultra-flex
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	INS8N6PO60-M8	INS8N6PO70-M12	INS88S2PO30-A2P
Article Code PNP, NC	⎎	INS8N6PC60-M8	INS8N6PC70-M12	INS88S2PC30-A2P
Article Code PNP, NO+NC	⎍ + ⎎			
Article Code NPN, NO	⎍	INS8N6NO60-M8	INS8N6NO70-M12	INS88S2NO30-A2P
Article Code NPN, NC	⎎	INS8N6NC60-M8	INS8N6NC70-M12	INS88S2NC30-A2P
Article Code NPN, NO+NC	⎍ + ⎎			

shielded
bündig
8 × 8 | 2 mm

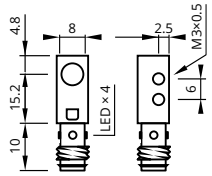
increased
erhöht

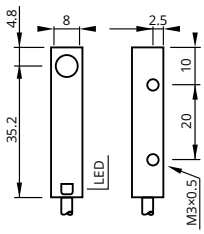
increased
erhöht

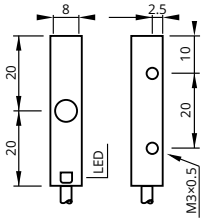
increased
erhöht

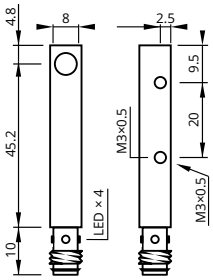
increased
erhöht

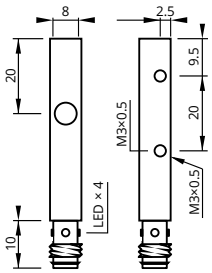
increased
erhöht







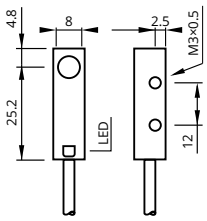
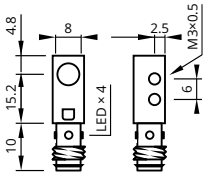
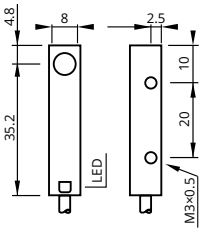




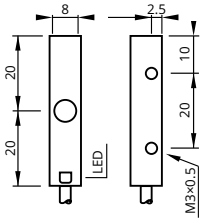
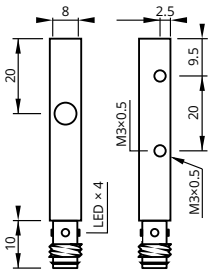
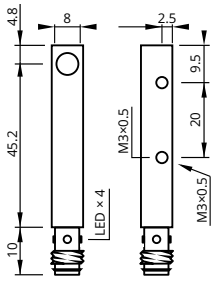
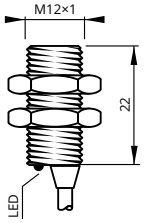
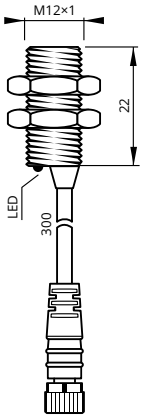
2 mm	2 mm	2 mm	2 mm	2 mm
8 × 8	8 × 8	8 × 8	8 × 8	8 × 8
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
1000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass	brass	brass	brass	brass
conn. M8 Stecker M8	PVC, ultra-flex	PVC, ultra-flex	conn. M8 Stecker M8	conn. M8 Stecker M8
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS88S2PO30-M8	INS88S2PO40-A2P	INS88S2PO40C-A2P	INS88S2PO60-M8	INS88S2PO60C-M8
INS88S2PC30-M8	INS88S2PC40-A2P	INS88S2PC40C-A2P	INS88S2PC60-M8	INS88S2PC60C-M8
INS88S2NO30-M8	INS88S2NO40-A2P	INS88S2NO40C-A2P	INS88S2NO60-M8	INS88S2NO60C-M8
INS88S2NC30-M8	INS88S2NC40-A2P	INS88S2NC40C-A2P	INS88S2NC60-M8	INS88S2NC60C-M8

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

	shielded bündig **8 × 8 | 3 mm**	shielded bündig **8 × 8 | 3 mm**	shielded bündig **8 × 8 | 3 mm**
			
	extended erweitert	extended erweitert	extended erweitert
			

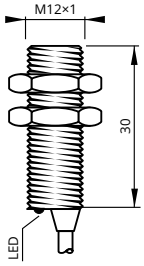
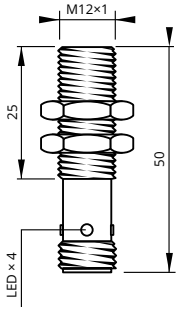
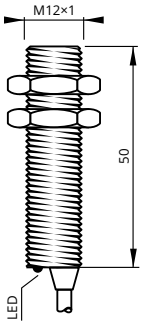
Sensing Distance	Schaltabstand	3 mm	3 mm	3 mm
Housing Size	Gehäusegröße	8 × 8	8 × 8	8 × 8
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	1000 Hz	1000 Hz	1000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	brass	brass	brass
Connection	Anschluss	PVC, ultra-flex	conn. M8 Stecker M8	PVC, ultra-flex
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	INS88S3PO30-A2P	INS88S3PO30-M8	INS88S3PO40-A2P
Article Code PNP, NC	⎎	INS88S3PC30-A2P	INS88S3PC30-M8	INS88S3PC40-A2P
Article Code PNP, NO+NC	⎍ + ⎎			
Article Code NPN, NO	⎍	INS88S3NO30-A2P	INS88S3NO30-M8	INS88S3NO40-A2P
Article Code NPN, NC	⎎	INS88S3NC30-A2P	INS88S3NC30-M8	INS88S3NC40-A2P
Article Code NPN, NO+NC	⎍ + ⎎			

shielded bündig **8 × 8 | 3 mm**	shielded bündig **8 × 8 | 3 mm**	shielded bündig **8 × 8 | 3mm**	shielded bündig **M12×1 | 2 mm**	shielded bündig **M12×1 | 2 mm**
				
extended erweitert	extended erweitert	extended erweitert	standard	standard
				

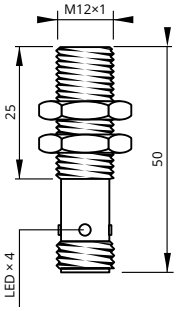
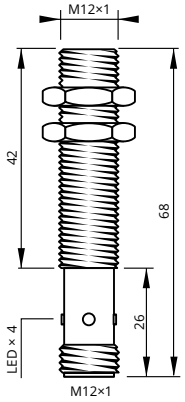
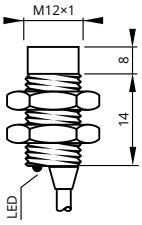
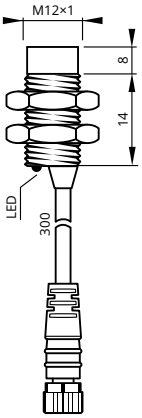
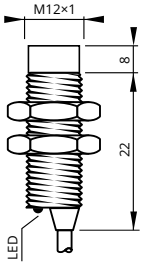
3 mm	3 mm	3mm	2 mm	2 mm
8 × 8	8 × 8	8 × 8	M12×1	M12×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
1000 Hz	1000 Hz	1000 Hz	2000 Hz	2000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass	brass	brass	brass	brass
PVC, ultra-flex	conn. M8 Stecker M8	conn. M8 Stecker M8	PVC, ultra-flex	PVC, 300 mm, M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS88S3PO40C-A2P	INS88S3PO60C-M8	INS88S3PO60-M8	INS12S2PO22-A2P	INS12S2PO22-3P12
INS88S3PC40C-A2P	INS88S3PC60C-M8	INS88S3PC60-M8	INS12S2PC22-A2P	INS12S2PC22-3P12
INS88S3NO40C-A2P	INS88S3NO60C-M8	INS88S3NO60-M8	INS12S2NO22-A2P	INS12S2NO22-3P12
INS88S3NC40C-A2P	INS88S3NC60C-M8	INS88S3NC60-M8	INS12S2NC22-A2P	INS12S2NC22-3P12

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

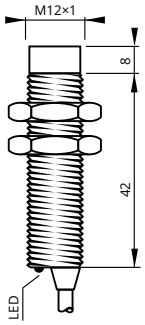
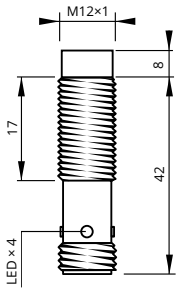
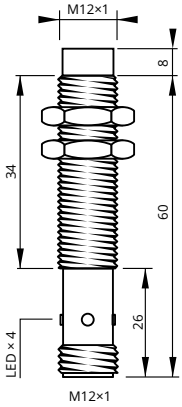
shielded bündig **M12×1 | 2 mm**	shielded bündig **M12×1 | 2 mm**	shielded bündig **M12×1 | 2 mm**
		
standard	standard	standard
		

Sensing Distance	Schaltabstand	2 mm	2 mm	2 mm
Housing Size	Gehäusegröße	M12×1	M12×1	M12×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	2000 Hz	2000 Hz	2000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	brass	brass	brass
Connection	Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	INS12S2PO30-A2P	INS12S2PO35-M12	INS12S2PO50-A2P
Article Code PNP, NC	⎎	INS12S2PC30-A2P	INS12S2PC35-M12	INS12S2PC50-A2P
Article Code PNP, NO+NC	⎍ + ⎎			
Article Code NPN, NO	⎍	INS12S2NO30-A2P	INS12S2NO35-M12	INS12S2NO50-A2P
Article Code NPN, NC	⎎	INS12S2NC30-A2P	INS12S2NC35-M12	INS12S2NC50-A2P
Article Code NPN, NO+NC	⎍ + ⎎			

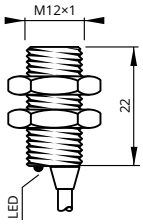
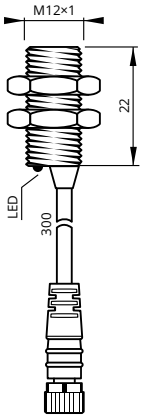
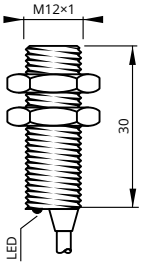
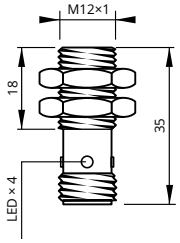
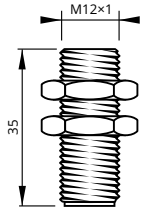
shielded bündig **M12×1 | 2 mm**	shielded bündig **M12×1 | 2 mm**	unshielded nicht bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 4 mm**
				
standard	standard	standard	standard	standard
				
2 mm	2 mm	4 mm	4 mm	4 mm
M12×1	M12×1	M12×1	M12×1	M12×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
2000 Hz	2000 Hz	1000 Hz	1000 Hz	1000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass	brass	brass	brass	brass
conn. M12 Stecker M12	conn. M12 Stecker M12	PVC, ultra-flex	PVC, 300 mm, M12	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS12S2PO50-M12	INS12S2PO68-M12	INS12N4PO22-A2P	INS12N4PO22-3P12	INS12N4PO30-A2P
INS12S2PC50-M12	INS12S2PC68-M12	INS12N4PC22-A2P	INS12N4PC22-3P12	INS12N4PC30-A2P
INS12S2NO50-M12	INS12S2NO68-M12	INS12N4NO22-A2P	INS12N4NO22-3P12	INS12N4NO30-A2P
INS12S2NC50-M12	INS12S2NC68-M12	INS12N4NC22-A2P	INS12N4NC22-3P12	INS12N4NC30-A2P

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

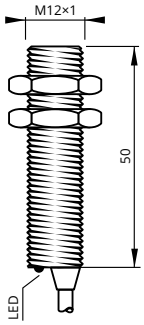
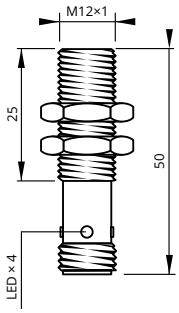
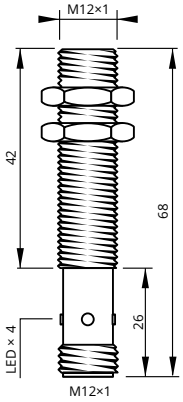
unshielded nicht bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 4 mm**
		
standard	standard	standard
		

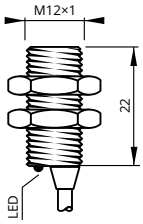
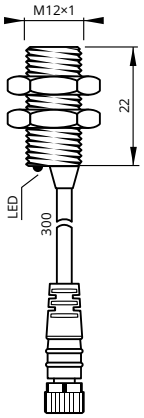
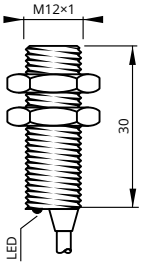
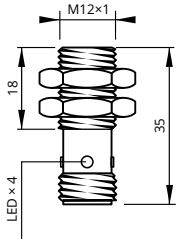
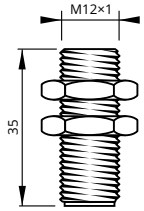
Sensing Distance	Schaltabstand	4 mm	4 mm	4 mm
Housing Size	Gehäusegröße	M12×1	M12×1	M12×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	1000 Hz	1000 Hz	1000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	brass	brass	brass
Connection	Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	INS12N4PO50-A2P	INS12N4PO50-M12	INS12N4PO68-M12
Article Code PNP, NC	⎎	INS12N4PC50-A2P	INS12N4PC50-M12	INS12N4PC68-M12
Article Code PNP, NO+NC	⎍ + ⎎			
Article Code NPN, NO	⎍	INS12N4NO50-A2P	INS12N4NO50-M12	INS12N4NO68-M12
Article Code NPN, NC	⎎	INS12N4NC50-A2P	INS12N4NC50-M12	INS12N4NC68-M12
Article Code NPN, NO+NC	⎍ + ⎎			

shielded bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				
4 mm	4 mm	4 mm	4 mm	4 mm
M12×1	M12×1	M12×1	M12×1	M12×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
1000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass	brass	brass	brass	brass
PVC, ultra-flex	PVC, 300 mm, M12	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	
INS12S4PO22-A2P	INS12S4PO22-3P12	INS12S4PO30-A2P	INS12S4PO35-M12	INS12S4PO35-N12
INS12S4PC22-A2P	INS12S4PC22-3P12	INS12S4PC30-A2P	INS12S4PC35-M12	INS12S4PC35-N12
		INS12S4PCO30-A2P		
INS12S4NO22-A2P	INS12S4NO22-3P12	INS12S4NO30-A2P	INS12S4NO35-M12	INS12S4NO35-N12
INS12S4NC22-A2P	INS12S4NC22-3P12	INS12S4NC30-A2P	INS12S4NC35-M12	INS12S4NC35-N12
		INS12S4NCO30-A2P		

Minor changes possible
Geringfügige Änderungen möglich

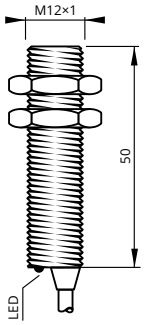
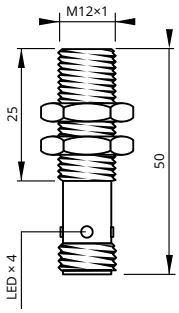
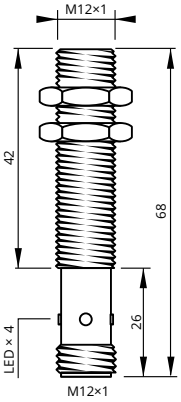
3-Wire
3-Leiter

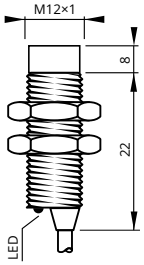
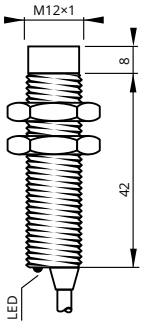
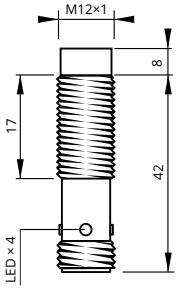
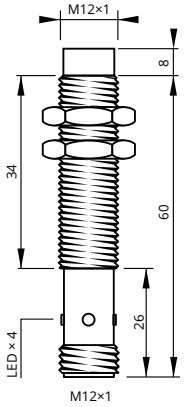
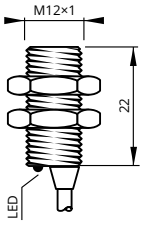
	shielded bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**
			
	increased erhöht	increased erhöht	increased erhöht
			
Sensing Distance / Schaltabstand	4 mm	4 mm	4 mm
Housing Size / Gehäusegröße	M12×1	M12×1	M12×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	1000 Hz	1000 Hz	1000 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass	brass	brass
Connection / Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	—/—	INS12S4PO50-A2P	INS12S4PO50-M12	INS12S4PO68-M12
Article Code PNP, NC	—\—	INS12S4PC50-A2P	INS12S4PC50-M12	INS12S4PC68-M12
Article Code PNP, NO+NC	—/— + —\—	INS12S4PCO50-A2P	INS12S4PCO50-M12	INS12S4PCO68-M12
Article Code NPN, NO	—/—	INS12S4NO50-A2P	INS12S4NO50-M12	INS12S4NO68-M12
Article Code NPN, NC	—\—	INS12S4NC50-A2P	INS12S4NC50-M12	INS12S4NC68-M12
Article Code NPN, NO+NC	—/— + —\—	INS12S4NCO50-A2P	INS12S4NCO50-M12	INS12S4NCO68-M12

semi-shielded quasi-bündig **M12×1 | 6 mm**	semi-shielded quasi-bündig **M12×1 | 6 mm**	semi-shielded quasi-bündig **M12×1 | 6 mm**	semi-shielded quasi-bündig **M12×1 | 6 mm**	semi-shielded quasi-bündig **M12×1 | 6 mm**
				
extended erweitert	extended erweitert	extended erweitert	extended erweitert	extended erweitert
				
6 mm	6 mm	6 mm	6 mm	6 mm
M12×1	M12×1	M12×1	M12×1	M12×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
800 Hz	800 Hz	800 Hz	800 Hz	800 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass	brass	brass	brass	brass
PVC, ultra-flex	PVC, 300 mm, M12	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	
INS12S6PO22-A2P	INS12S6PO22-3P12	INS12S6PO30-A2P	INS12S6PO35-M12	INS12S6PO35-N12
INS12S6PC22-A2P	INS12S6PC22-3P12	INS12S6PC30-A2P	INS12S6PC35-M12	INS12S6PC35-N12
INS12S6NO22-A2P	INS12S6NO22-3P12	INS12S6NO30-A2P	INS12S6NO35-M12	INS12S6NO35-N12
INS12S6NC22-A2P	INS12S6NC22-3P12	INS12S6NC30-A2P	INS12S6NC35-M12	INS12S6NC35-N12

Minor changes possible
Geringfügige Änderungen möglich

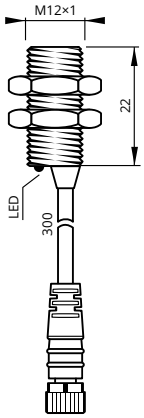
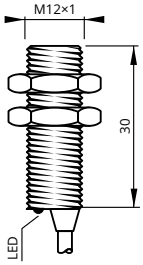
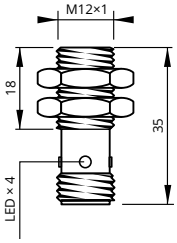
3-Wire
3-Leiter

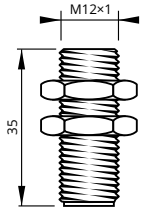
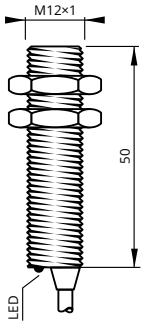
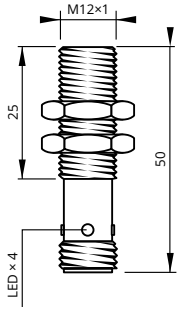
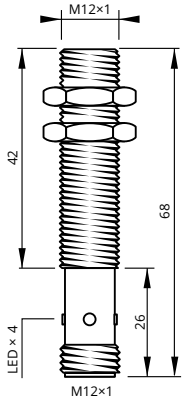
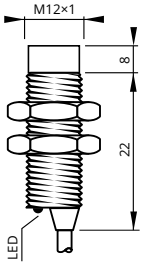
	semi-shielded quasi-bündig **M12×1 | 6 mm**	semi-shielded quasi-bündig **M12×1 | 6 mm**	semi-shielded quasi-bündig **M12×1 | 6 mm**
			
	extended erweitert	extended erweitert	extended erweitert
			
Sensing Distance / Schaltabstand	6 mm	6 mm	6 mm
Housing Size / Gehäusegröße	M12×1	M12×1	M12×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	800 Hz	800 Hz	800 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass	brass	brass
Connection / Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	—/—	INS12S6PO50-A2P	INS12S6PO50-M12	INS12S6PO68-M12
Article Code PNP, NC	—⊀—	INS12S6PC50-A2P	INS12S6PC50-M12	INS12S6PC68-M12
Article Code PNP, NO+NC	—/— + —⊀—			
Article Code NPN, NO	—/—	INS12S6NO50-A2P	INS12S6NO50-M12	INS12S6NO68-M12
Article Code NPN, NC	—⊀—	INS12S6NC50-A2P	INS12S6NC50-M12	INS12S6NC68-M12
Article Code NPN, NO+NC	—/— + —⊀—			

unshielded nicht bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 8 mm**	semi-shielded quasi-bündig **M12×1 | 8 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	advanced hochentwickelt
				
8 mm	8 mm	8 mm	8 mm	8 mm
M12×1	M12×1	M12×1	M12×1	M12×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
500 Hz	500 Hz	500 Hz	500 Hz	800 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass	brass	brass	brass	brass
PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS12N8PO30-A2P	INS12N8PO50-A2P	INS12N8PO50-M12	INS12N8PO68-M12	INS12S8PO22-A2P
INS12N8PC30-A2P	INS12N8PC50-A2P	INS12N8PC50-M12	INS12N8PC68-M12	INS12S8PC22-A2P
INS12N8NO30-A2P	INS12N8NO50-A2P	INS12N8NO50-M12	INS12N8NO68-M12	INS12S8NO22-A2P
INS12N8NC30-A2P	INS12N8NC50-A2P	INS12N8NC50-M12	INS12N8NC68-M12	INS12S8NC22-A2P

Minor changes possible
Geringfügige Änderungen möglich

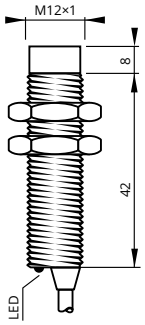
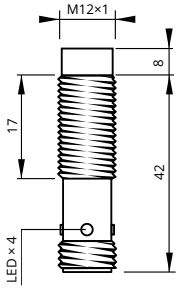
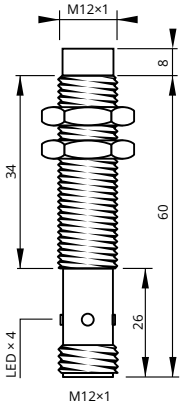
3-Wire
3-Leiter

	semi-shielded quasi-bündig **M12×1 | 8 mm**	semi-shielded quasi-bündig **M12×1 | 8 mm**	semi-shielded quasi-bündig **M12×1 | 8 mm**
			
	advanced hochentwickelt	advanced hochentwickelt	advanced hochentwickelt
			
Sensing Distance / Schaltabstand	8 mm	8 mm	8 mm
Housing Size / Gehäusegröße	M12×1	M12×1	M12×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	800 Hz	800 Hz	800 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass	brass	brass
Connection / Anschluss	PVC, 300 mm, M12	PVC, ultra-flex	conn. M12 Stecker M12
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	—/—	INS12S8PO22-3P12	INS12S8PO30-A2P	INS12S8PO35-M12
Article Code PNP, NC	—\—	INS12S8PC22-3P12	INS12S8PC30-A2P	INS12S8PC35-M12
Article Code PNP, NO+NC	—/— + —\—			
Article Code NPN, NO	—/—	INS12S8NO22-3P12	INS12S8NO30-A2P	INS12S8NO35-M12
Article Code NPN, NC	—\—	INS12S8NC22-3P12	INS12S8NC30-A2P	INS12S8NC35-M12
Article Code NPN, NO+NC	—/— + —\—			

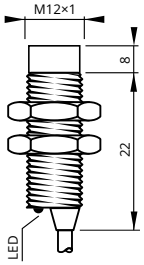
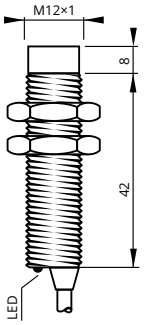
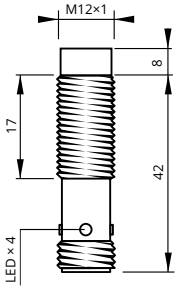
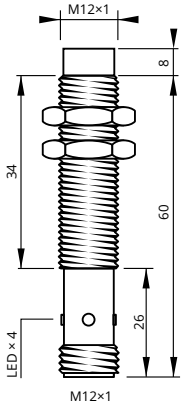
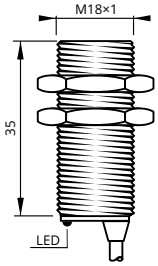
semi-shielded quasi-bündig **M12×1 | 8 mm**	semi-shielded quasi-bündig **M12×1 | 8 mm**	semi-shielded quasi-bündig **M12×1 | 8 mm**	semi-shielded quasi-bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 10 mm**
				
advanced hochentwickelt	advanced hochentwickelt	advanced hochentwickelt	advanced hochentwickelt	extended erweitert
				
8 mm	8 mm	8 mm	8 mm	10 mm
M12×1	M12×1	M12×1	M12×1	M12×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
800 Hz	800 Hz	800 Hz	800 Hz	400 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass	brass	brass	brass	brass
conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12	PVC, ultra-flex
	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS12S8PO35-N12	INS12S8PO50-A2P	INS12S8PO50-M12	INS12S8PO68-M12	INS12N10PO30-A2P
INS12S8PC35-N12	INS12S8PC50-A2P	INS12S8PC50-M12	INS12S8PC68-M12	INS12N10PC30-A2P
INS12S8NO35-N12	INS12S8NO50-A2P	INS12S8NO50-M12	INS12S8NO68-M12	INS12N10NO30-A2P
INS12S8NC35-N12	INS12S8NC50-A2P	INS12S8NC50-M12	INS12S8NC68-M12	INS12N10NC30-A2P

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

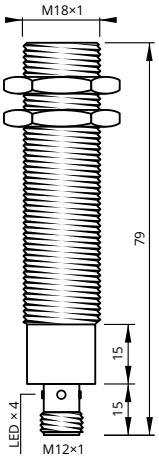
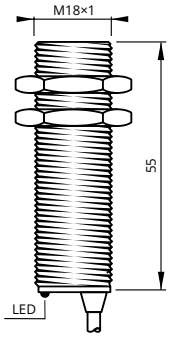
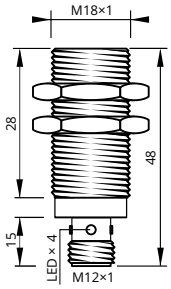
unshielded nicht bündig **M12×1 | 10 mm**	unshielded nicht bündig **M12×1 | 10 mm**	unshielded nicht bündig **M12×1 | 10 mm**
		
extended erweitert	extended erweitert	extended erweitert
		

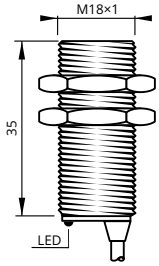
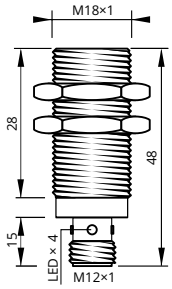
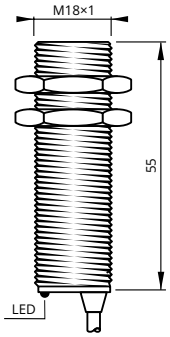
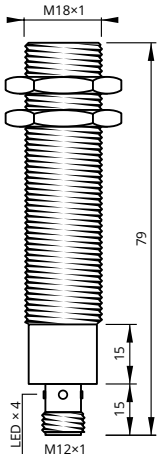
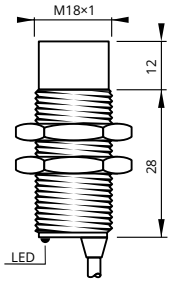
Sensing Distance	Schaltabstand	10 mm	10 mm	10 mm
Housing Size	Gehäusegröße	M12×1	M12×1	M12×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	400 Hz	400 Hz	400 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	brass	brass	brass
Connection	Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	INS12N10PO50-A2P	INS12N10PO50-M12	INS12N10PO68-M12
Article Code PNP, NC	⎎	INS12N10PC50-A2P	INS12N10PC50-M12	INS12N10PC68-M12
Article Code PNP, NO+NC	⎍ + ⎎			
Article Code NPN, NO	⎍	INS12N10NO50-A2P	INS12N10NO50-M12	INS12N10NO68-M12
Article Code NPN, NC	⎎	INS12N10NC50-A2P	INS12N10NC50-M12	INS12N10NC68-M12
Article Code NPN, NO+NC	⎍ + ⎎			

unshielded nicht bündig **M12×1 | 12 mm**	unshielded nicht bündig **M12×1 | 12 mm**	unshielded nicht bündig **M12×1 | 12 mm**	unshielded nicht bündig **M12×1 | 12 mm**	shielded bündig **M18×1 | 5 mm**
				
advanced hochentwickelt	advanced hochentwickelt	advanced hochentwickelt	advanced hochentwickelt	standard
				
12 mm	12 mm	12 mm	12 mm	5 mm
M12×1	M12×1	M12×1	M12×1	M18×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
400 Hz	400 Hz	400 Hz	400 Hz	1000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass	brass	brass	brass	brass
PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS12N12PO30-A2P	INS12N12PO50-A2P	INS12N12PO50-M12	INS12N12PO68-M12	INS18S5PO35-A2P
INS12N12PC30-A2P	INS12N12PC50-A2P	INS12N12PC50-M12	INS12N12PC68-M12	INS18S5PC35-A2P
INS12N12NO30-A2P	INS12N12NO50-A2P	INS12N12NO50-M12	INS12N12NO68-M12	INS18S5NO35-A2P
INS12N12NC30-A2P	INS12N12NC50-A2P	INS12N12NC50-M12	INS12N12NC68-M12	INS18S5NC35-A2P

Minor changes possible
Geringfügige Änderungen möglich

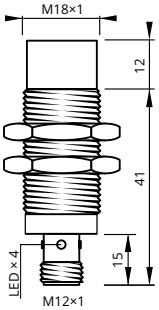
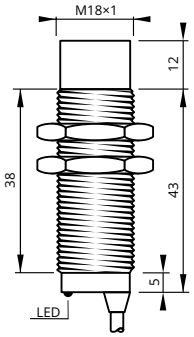
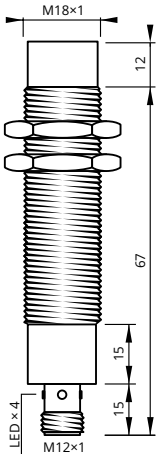
3-Wire
3-Leiter

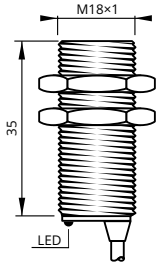
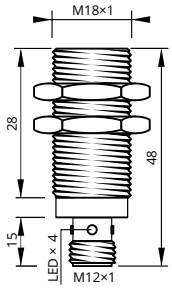
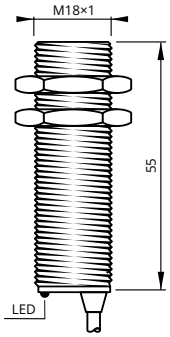
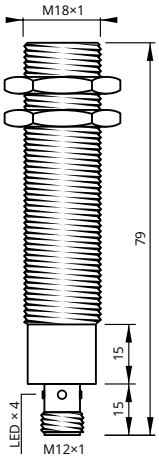
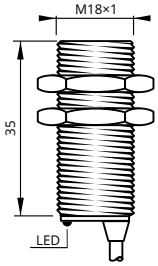
		shielded bündig **M18×1 | 5 mm**	shielded bündig **M18×1 | 5 mm**	shielded bündig **M18×1 | 5 mm**
				
		standard	standard	standard
				
Sensing Distance	Schaltabstand	5 mm	5 mm	5 mm
Housing Size	Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	1000 Hz	1000 Hz	1000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	brass	brass	brass
Connection	Anschluss	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	INS18S5PO48-M12	INS18S5PO55-A2P	INS18S5PO79-M12
Article Code PNP, NC	⎎	INS18S5PC48-M12	INS18S5PC55-A2P	INS18S5PC79-M12
Article Code PNP, NO+NC	⎍ + ⎎			
Article Code NPN, NO	⎍	INS18S5NO48-M12	INS18S5NO55-A2P	INS18S5NO79-M12
Article Code NPN, NC	⎎	INS18S5NC48-M12	INS18S5NC55-A2P	INS18S5NC79-M12
Article Code NPN, NO+NC	⎍ + ⎎			

shielded bündig **M18×1 | 8 mm**	shielded bündig **M18×1 | 8 mm**	shielded bündig **M18×1 | 8 mm**	shielded bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 8 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	standard
				
8 mm	8 mm	8 mm	8 mm	8 mm
M18×1	M18×1	M18×1	M18×1	M18×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
500 Hz	500 Hz	500 Hz	500 Hz	500 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass	brass	brass	brass	brass
PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS18S8PO35-A2P	INS18S8PO48-M12	INS18S8PO55-A2P	INS18S8PO79-M12	INS18N8PO40-A2P
INS18S8PC35-A2P	INS18S8PC48-M12	INS18S8PC55-A2P	INS18S8PC79-M12	INS18N8PC40-A2P
INS18S8PCO35-A2P	INS18S8PCO48-M12	INS18S8PCO55-A2P	INS18S8PCO79-M12	
INS18S8NO35-A2P	INS18S8NO48-M12	INS18S8NO55-A2P	INS18S8NO79-M12	INS18N8NO40-A2P
INS18S8NC35-A2P	INS18S8NC48-M12	INS18S8NC55-A2P	INS18S8NC79-M12	INS18N8NC40-A2P
INS18S8NCO35-A2P	INS18S8NCO48-M12	INS18S8NCO55-A2P	INS18S8NCO79-M12	

Minor changes possible
Geringfügige Änderungen möglich

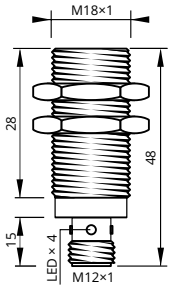
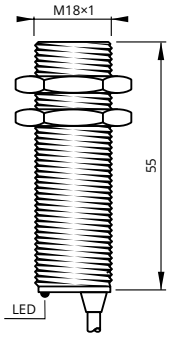
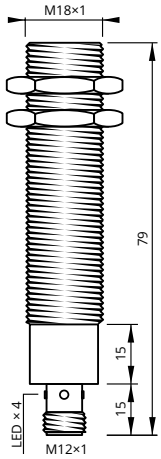
3-Wire
3-Leiter

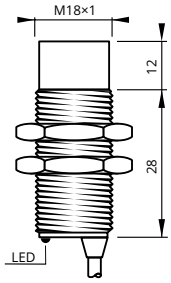
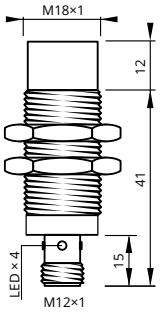
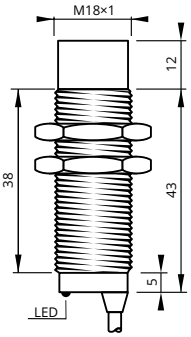
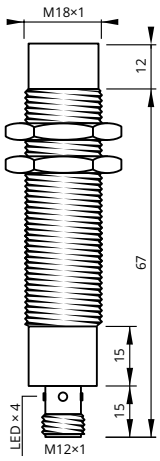
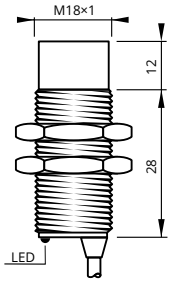
	unshielded nicht bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 8 mm**
			
	standard	standard	standard
			
Sensing Distance / Schaltabstand	8 mm	8 mm	8 mm
Housing Size / Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	500 Hz	500 Hz	500 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass	brass	brass
Connection / Anschluss	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	INS18N8PO53-M12	INS18N8PO55-A2P	INS18N8PO79-M12
Article Code PNP, NC	INS18N8PC53-M12	INS18N8PC55-A2P	INS18N8PC79-M12
Article Code PNP, NO+NC			
Article Code NPN, NO	INS18N8NO53-M12	INS18N8NO55-A2P	INS18N8NO79-M12
Article Code NPN, NC	INS18N8NC53-M12	INS18N8NC55-A2P	INS18N8NC79-M12
Article Code NPN, NO+NC			

semi-shielded quasi-bündig **M18×1 | 12 mm**	semi-shielded quasi-bündig **M18×1 | 12 mm**	semi-shielded quasi-bündig **M18×1 | 12 mm**	semi-shielded quasi-bündig **M18×1 | 12 mm**	semi-shielded quasi-bündig **M18×1 | 15 mm**
				
extended erweitert	extended erweitert	extended erweitert	extended erweitert	advanced hochentwickelt
				
12 mm	12 mm	12 mm	12 mm	15 mm
M18×1	M18×1	M18×1	M18×1	M18×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
300 Hz	300 Hz	300 Hz	300 Hz	300 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass	brass	brass	brass	brass
PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS18S12PO35-A2P	INS18S12PO48-M12	INS18S12PO55-A2P	INS18S12PO79-M12	INS18S15PO35-A2P
INS18S12PC35-A2P	INS18S12PC48-M12	INS18S12PC55-A2P	INS18S12PC79-M12	INS18S15PC35-A2P
INS18S12NO35-A2P	INS18S12NO48-M12	INS18S12NO55-A2P	INS18S12NO79-M12	INS18S15NO35-A2P
INS18S12NC35-A2P	INS18S12NC48-M12	INS18S12NC55-A2P	INS18S12NC79-M12	INS18S15NC35-A2P

Minor changes possible
Geringfügige Änderungen möglich

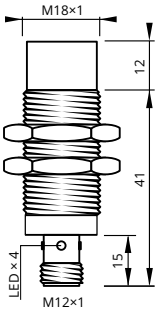
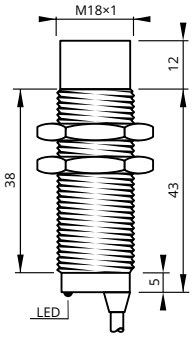
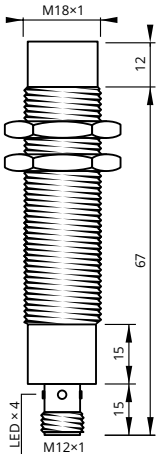
3-Wire
3-Leiter

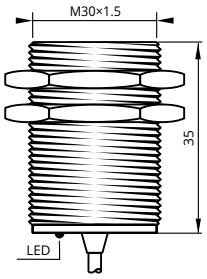
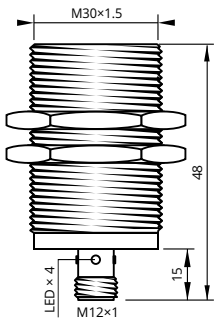
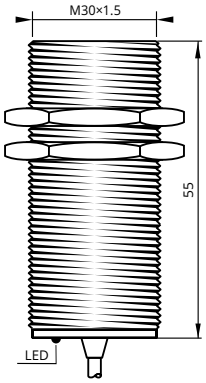
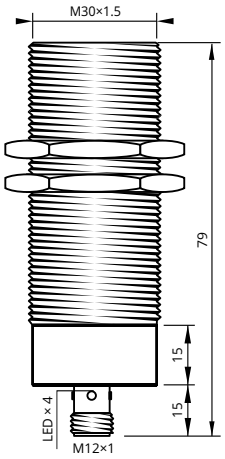
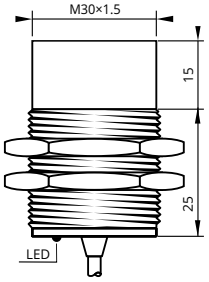
	semi-shielded quasi-bündig **M18×1 | 15 mm**	semi-shielded quasi-bündig **M18×1 | 15 mm**	semi-shielded quasi-bündig **M18×1 | 15 mm**
			
	advanced hochentwickelt	advanced hochentwickelt	advanced hochentwickelt
			
Sensing Distance / Schaltabstand	15 mm	15 mm	15 mm
Housing Size / Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	300 Hz	300 Hz	300 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass	brass	brass
Connection / Anschluss	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO		INS18S15PO48-M12	INS18S15PO55-A2P	INS18S15PO79-M12
Article Code PNP, NC		INS18S15PC48-M12	INS18S15PC55-A2P	INS18S15PC79-M12
Article Code PNP, NO+NC				
Article Code NPN, NO		INS18S15NO48-M12	INS18S15NO55-A2P	INS18S15NO79-M12
Article Code NPN, NC		INS18S15NC48-M12	INS18S15NC55-A2P	INS18S15NC79-M12
Article Code NPN, NO+NC				

unshielded nicht bündig **M18×1 | 16 mm**	unshielded nicht bündig **M18×1 | 16 mm**	unshielded nicht bündig **M18×1 | 16 mm**	unshielded nicht bündig **M18×1 | 16 mm**	unshielded nicht bündig **M18×1 | 20 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	extended erweitert
				
16 mm	16 mm	16 mm	16 mm	20 mm
M18×1	M18×1	M18×1	M18×1	M18×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
150 Hz	150 Hz	150 Hz	150 Hz	100 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass	brass	brass	brass	brass
PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS18N16PO40-A2P	INS18N16PO53-M12	INS18N16PO55-A2P	INS18N16PO79-M12	INS18N20PO40-A2P
INS18N16PC40-A2P	INS18N16PC53-M12	INS18N16PC55-A2P	INS18N16PC79-M12	INS18N20PC40-A2P
INS18N16PCO40-A2P	INS18N16PCO53-M12	INS18N16PCO55-A2P	INS18N16PCO79-M12	
INS18N16NO40-A2P	INS18N16NO53-M12	INS18N16NO55-A2P	INS18N16NO79-M12	INS18N20NO40-A2P
INS18N16NC40-A2P	INS18N16NC53-M12	INS18N16NC55-A2P	INS18N16NC79-M12	INS18N20NC40-A2P
INS18N16NCO40-A2P	INS18N16NCO53-M12	INS18N16NCO55-A2P	INS18N16NCO79-M12	

Minor changes possible
Geringfügige Änderungen möglich

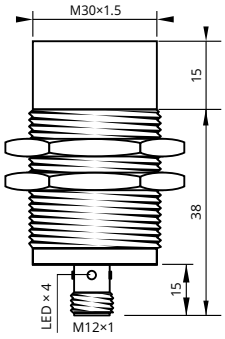
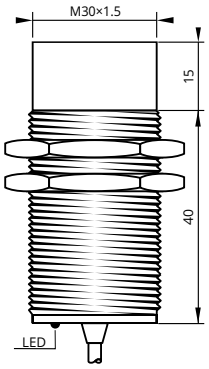
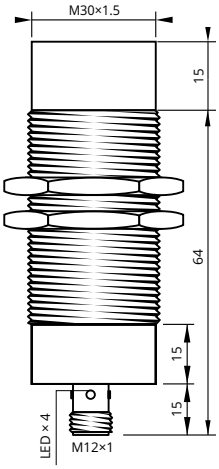
3-Wire
3-Leiter

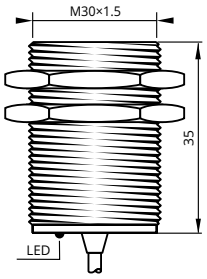
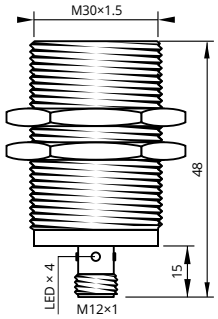
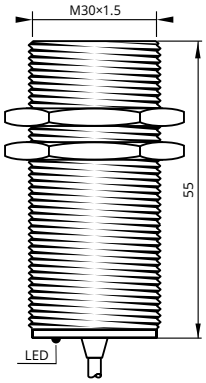
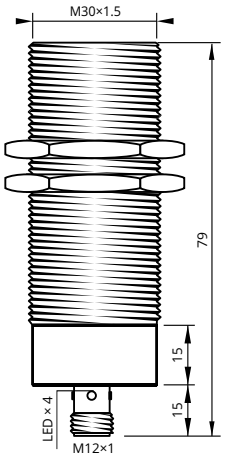
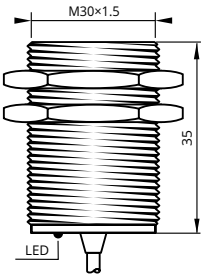
	unshielded nicht bündig **M18×1 | 20 mm**	unshielded nicht bündig **M18×1 | 20 mm**	unshielded nicht bündig **M18×1 | 20 mm**
			
	extended erweitert	extended erweitert	extended erweitert
			
Sensing Distance / Schaltabstand	20 mm	20 mm	20 mm
Housing Size / Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	100 Hz	100 Hz	100 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass	brass	brass
Connection / Anschluss	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	INS18N20PO53-M12	INS18N20PO55-A2P	INS18N20PO79-M12
Article Code PNP, NC	INS18N20PC53-M12	INS18N20PC55-A2P	INS18N20PC79-M12
Article Code PNP, NO+NC			
Article Code NPN, NO	INS18N20NO53-M12	INS18N20NO55-A2P	INS18N20NO79-M12
Article Code NPN, NC	INS18N20NC53-M12	INS18N20NC55-A2P	INS18N20NC79-M12
Article Code NPN, NO+NC			

shielded bündig **M30×1.5 | 10 mm**	shielded bündig **M30×1.5 | 10 mm**	shielded bündig **M30×1.5 | 10 mm**	shielded bündig **M30×1.5 | 10 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**
				
standard	standard	standard	standard	standard
				
10 mm	10 mm	10 mm	10 mm	15 mm
M30×1.5	M30×1.5	M30×1.5	M30×1.5	M30×1.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
300 Hz	300 Hz	300 Hz	300 Hz	150 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass	brass	brass	brass	brass
PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS30S10PO35-A2P	INS30S10PO48-M12	INS30S10PO55-A2P	INS30S10PO79-M12	INS30N15PO40-A2P
INS30S10PC35-A2P	INS30S10PC48-M12	INS30S10PC55-A2P	INS30S10PC79-M12	INS30N15PC40-A2P
INS30S10NO35-A2P	INS30S10NO48-M12	INS30S10NO55-A2P	INS30S10NO79-M12	INS30N15NO40-A2P
INS30S10NC35-A2P	INS30S10NC48-M12	INS30S10NC55-A2P	INS30S10NC79-M12	INS30N15NC40-A2P

Minor changes possible
Geringfügige Änderungen möglich

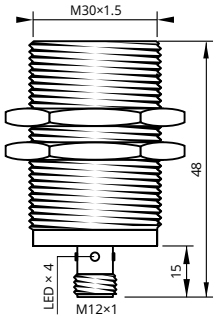
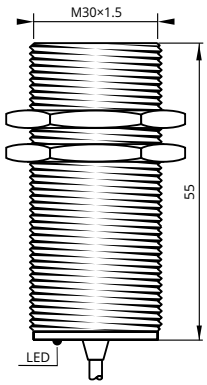
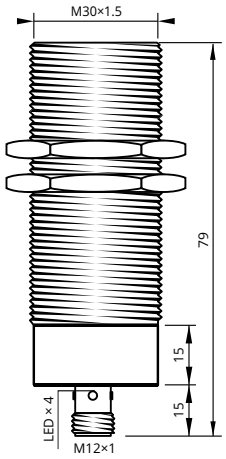
3-Wire
3-Leiter

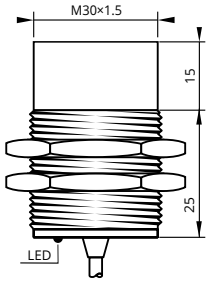
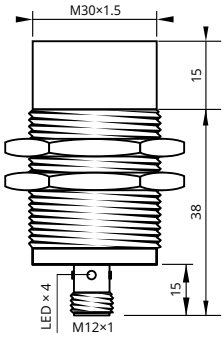
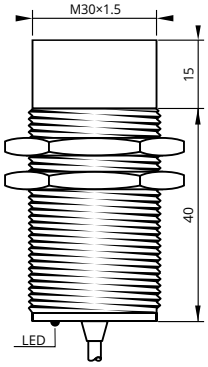
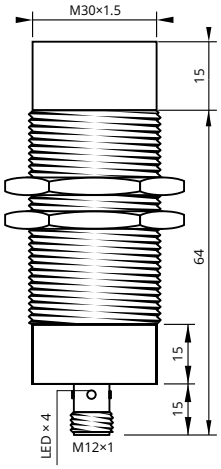
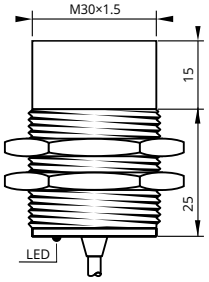
	unshielded nicht bündig **M30×1.5 | 15 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**
			
	standard	standard	standard
			
Sensing Distance / Schaltabstand	15 mm	15 mm	15 mm
Housing Size / Gehäusegröße	M30×1.5	M30×1.5	M30×1.5
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	150 Hz	150 Hz	150 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass	brass	brass
Connection / Anschluss	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	INS30N15PO53-M12	INS30N15PO55-A2P	INS30N15PO79-M12
Article Code PNP, NC	INS30N15PC53-M12	INS30N15PC55-A2P	INS30N15PC79-M12
Article Code PNP, NO+NC			
Article Code NPN, NO	INS30N15NO53-M12	INS30N15NO55-A2P	INS30N15NO79-M12
Article Code NPN, NC	INS30N15NC53-M12	INS30N15NC55-A2P	INS30N15NC79-M12
Article Code NPN, NO+NC			

shielded bündig **M30×1.5 | 16 mm**	shielded bündig **M30×1.5 | 16 mm**	shielded bündig **M30×1.5 | 16 mm**	shielded bündig **M30×1.5 | 16 mm**	semi-shielded quasi-bündig **M30×1.5 | 22 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	extended erweitert
				
16 mm	16 mm	16 mm	16 mm	22 mm
M30×1.5	M30×1.5	M30×1.5	M30×1.5	M30×1.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
150 Hz	150 Hz	150 Hz	150 Hz	150 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass	brass	brass	brass	brass
PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS30S16PO35-A2P	INS30S16PO48-M12	INS30S16PO55-A2P	INS30S16PO79-M12	INS30S22PO35-A2P
INS30S16PC35-A2P	INS30S16PC48-M12	INS30S16PC55-A2P	INS30S16PC79-M12	INS30S22PC35-A2P
INS30S16PCO35-A2P	INS30S16PCO48-M12	INS30S16PCO55-A2P		
INS30S16NO35-A2P	INS30S16NO48-M12	INS30S16NO55-A2P	INS30S16NO79-M12	INS30S22NO35-A2P
INS30S16NC35-A2P	INS30S16NC48-M12	INS30S16NC55-A2P	INS30S16NC79-M12	INS30S22NC35-A2P
INS30S16NCO35-A2P	INS30S16NCO48-M12	INS30S16NCO55-A2P		

Minor changes possible
Geringfügige Änderungen möglich

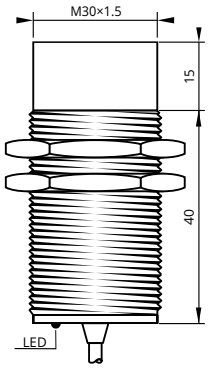
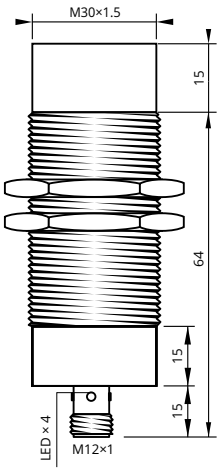
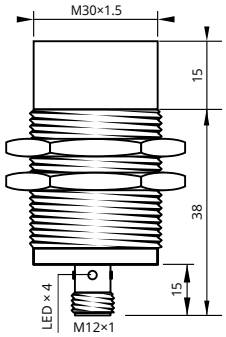
3-Wire
3-Leiter

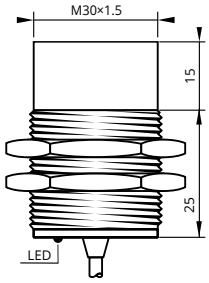
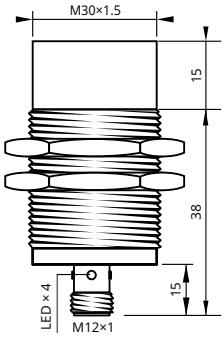
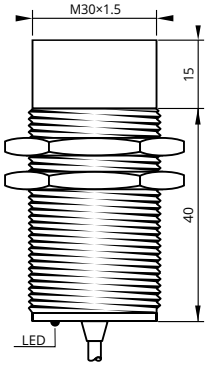
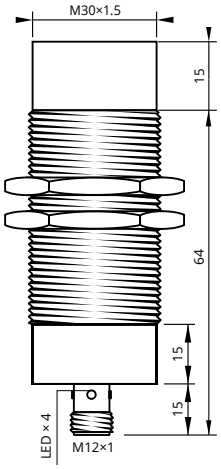
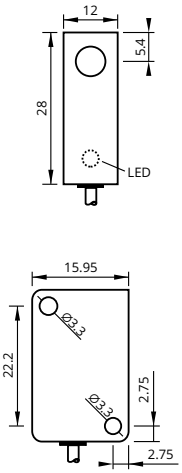
	semi-shielded quasi-bündig **M30×1.5 | 22 mm**	semi-shielded quasi-bündig **M30×1.5 | 22 mm**	semi-shielded quasi-bündig **M30×1.5 | 22 mm**
			
	extended erweitert	extended erweitert	extended erweitert
			
Sensing Distance / Schaltabstand	22 mm	22 mm	22 mm
Housing Size / Gehäusegröße	M30×1.5	M30×1.5	M30×1.5
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	150 Hz	150 Hz	150 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass	brass	brass
Connection / Anschluss	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	INS30S22PO48-M12	INS30S22PO55-A2P	INS30S22PO79-M12
Article Code PNP, NC	INS30S22PC48-M12	INS30S22PC55-A2P	INS30S22PC79-M12
Article Code PNP, NO+NC			
Article Code NPN, NO	INS30S22NO48-M12	INS30S22NO55-A2P	INS30S22NO79-M12
Article Code NPN, NC	INS30S22NC48-M12	INS30S22NC55-A2P	INS30S22NC79-M12
Article Code NPN, NO+NC			

unshielded nicht bündig **M30×1.5 | 25 mm**	unshielded nicht bündig **M30×1.5 | 25 mm**	unshielded nicht bündig **M30×1.5 | 25 mm**	unshielded nicht bündig **M30×1.5 | 25 mm**	unshielded nicht bündig **M30×1.5 | 40 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	extended erweitert
				
25 mm	25 mm	25 mm	25 mm	40 mm
M30×1.5	M30×1.5	M30×1.5	M30×1.5	M30×1.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass	brass	brass	brass	brass
PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS30N25PO40-A2P	INS30N25PO53-M12	INS30N25PO55-A2P	INS30N25PO79-M12	INS30N40PO40-A2P
INS30N25PC40-A2P	INS30N25PC53-M12	INS30N25PC55-A2P	INS30N25PC79-M12	INS30N40PC40-A2P
	INS30N25PCO53-M12	INS30N25PCO55-A2P	INS30N25PCO79-M12	
INS30N25NO40-A2P	INS30N25NO53-M12	INS30N25NO55-A2P	INS30N25NO79-M12	INS30N40NO40-A2P
INS30N25NC40-A2P	INS30N25NC53-M12	INS30N25NC55-A2P	INS30N25NC79-M12	INS30N40NC40-A2P
	INS30N25NCO53-M12	INS30N25NCO55-A2P	INS30N25NCO79-M12	

Minor changes possible
Geringfügige Änderungen möglich

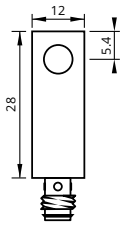
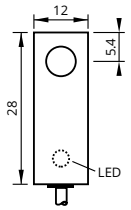
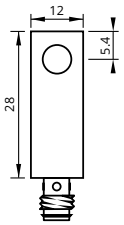
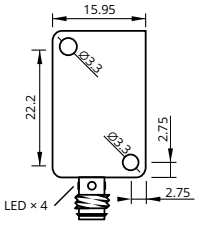
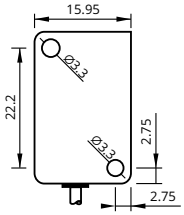
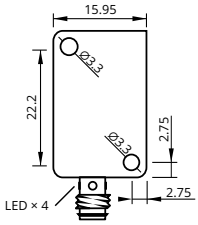
3-Wire
3-Leiter

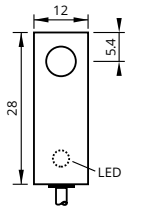
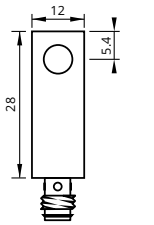
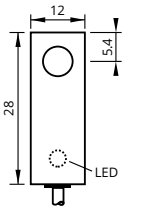
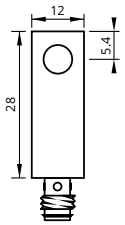
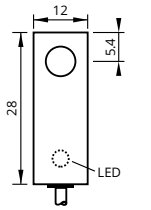
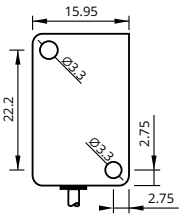
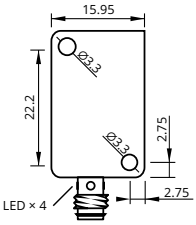
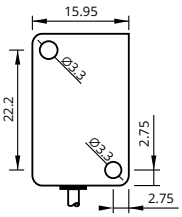
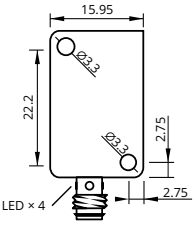
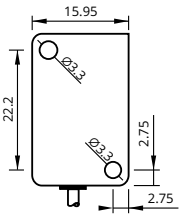
	unshielded nicht bündig **M30×1.5 | 40 mm**	unshielded nicht bündig **M30×1.5 | 40 mm**	unshielded nicht bündig **M30×1.5 | 40 mm**
			
	extended erweitert	extended erweitert	extended erweitert
			
Sensing Distance	Schaltabstand	40 mm	40 mm	40 mm
Housing Size	Gehäusegröße	M30×1.5	M30×1.5	M30×1.5
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	100 Hz	100 Hz	100 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	brass	brass	brass
Connection	Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	INS30N40PO55-A2P	INS30N40PO79-M12	INS30N40PO53-M12
Article Code PNP, NC	⎎	INS30N40PC55-A2P	INS30N40PC79-M12	INS30N40PC53-M12
Article Code PNP, NO+NC	⎍ + ⎎			
Article Code NPN, NO	⎍	INS30N40NO55-A2P	INS30N40NO79-M12	INS30N40NO53-M12
Article Code NPN, NC	⎎	INS30N40NC55-A2P	INS30N40NC79-M12	INS30N40NC53-M12
Article Code NPN, NO+NC	⎍ + ⎎			

unshielded nicht bündig **M30×1.5 | 50 mm**	unshielded nicht bündig **M30×1.5 | 50 mm**	unshielded nicht bündig **M30×1.5 | 50 mm**	unshielded nicht bündig **M30×1.5 | 50 mm**	shielded bündig **16×28×12 | 1 mm**
				
advanced hochentwickelt	advanced hochentwickelt	advanced hochentwickelt	advanced hochentwickelt	standard
				
50 mm	50 mm	50 mm	50 mm	1 mm
M30×1.5	M30×1.5	M30×1.5	M30×1.5	16×28×12
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
100 Hz	100 Hz	100 Hz	100 Hz	2000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	PBT
brass	brass	brass	brass	PBT
PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS30N50PO40-A2P	INS30N50PO53-M12	INS30N50PO55-A2P	INS30N50PO79-M12	INS1628S1POS-A2P
INS30N50PC40-A2P	INS30N50PC53-M12	INS30N50PC55-A2P	INS30N50PC79-M12	INS1628S1PCS-A2P
INS30N50NO40-A2P	INS30N50NO53-M12	INS30N50NO55-A2P	INS30N50NO79-M12	INS1628S1NOS-A2P
INS30N50NC40-A2P	INS30N50NC53-M12	INS30N50NC55-A2P	INS30N50NC79-M12	INS1628S1NCS-A2P

Minor changes possible
Geringfügige Änderungen möglich

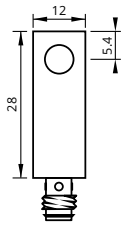
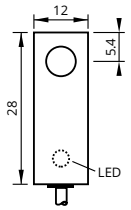
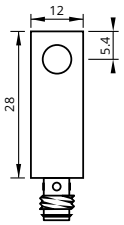
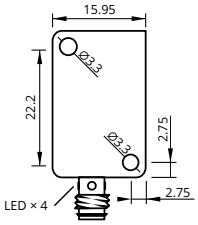
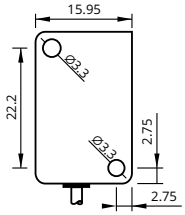
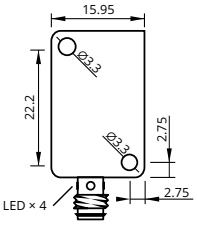
3-Wire
3-Leiter

	shielded bündig 16×28×12 | 1 mm	unshielded nicht bündig 16×28×12 | 2 mm	unshielded nicht bündig 16×28×12 | 2 mm
			
	standard	standard	standard
			
			
Sensing Distance	Schaltabstand	1 mm	2 mm	2 mm
Housing Size	Gehäusegröße	16×28×12	16×28×12	16×28×12
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	2000 Hz	2000 Hz	2000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	PBT	PBT	PBT
Housing Material	Gehäusewerkstoff	PBT	PBT	PBT
Connection	Anschluss	conn. M8 Stecker M8	PVC, ultra-flex	conn. M8 Stecker M8
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	INS1628S1POS-M8	INS1628N2POS-A2P	INS1628N2POS-M8
Article Code PNP, NC	⎎	INS1628S1PCS-M8	INS1628N2PCS-A2P	INS1628N2PCS-M8
Article Code PNP, NO+NC	⎍ + ⎎			
Article Code NPN, NO	⎍	INS1628S1NOS-M8	INS1628N2NOS-A2P	INS1628N2NOS-M8
Article Code NPN, NC	⎎	INS1628S1NCS-M8	INS1628N2NCS-A2P	INS1628N2NCS-M8
Article Code NPN, NO+NC	⎍ + ⎎			

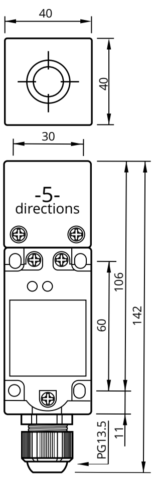
shielded bündig **16×28×12 | 2 mm**	shielded bündig **16×28×12 | 2 mm**	semi-shielded quasi-bündig **16×28×12 | 3 mm**	semi-shielded quasi-bündig **16×28×12 | 3 mm**	unshielded nicht bündig **16×28×12 | 4 mm**
				
increased erhöht	increased erhöht	extended erweitert	extended erweitert	increased erhöht
				
				
2 mm	2 mm	3 mm	3 mm	4 mm
16×28×12	16×28×12	16×28×12	16×28×12	16×28×12
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
PBT	PBT	PBT	PBT	PBT
PBT	PBT	PBT	PBT	PBT
PVC, ultra-flex	conn. M8 Stecker M8	PVC, ultra-flex	conn. M8 Stecker M8	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS1628S2POS-A2P	INS1628S2POS-M8	INS1628S3POS-A2P	INS1628S3POS-M8	INS1628N4POS-A2P
INS1628S2PCS-A2P	INS1628S2PCS-M8	INS1628S3PCS-A2P	INS1628S3PCS-M8	INS1628N4PCS-A2P
INS1628S2NOS-A2P	INS1628S2NOS-M8	INS1628S3NOS-A2P	INS1628S3NOS-M8	INS1628N4NOS-A2P
INS1628S2NCS-A2P	INS1628S2NCS-M8	INS1628S3NCS-A2P	INS1628S3NCS-M8	INS1628N4NCS-A2P

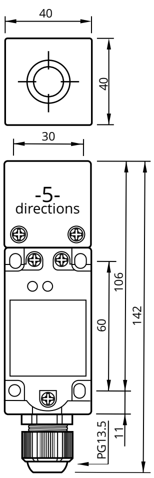
Minor changes possible
Geringfügige Änderungen möglich

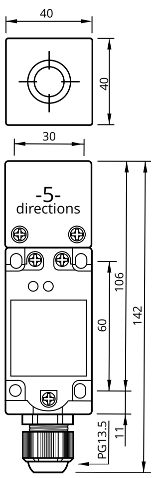
3-Wire
3-Leiter

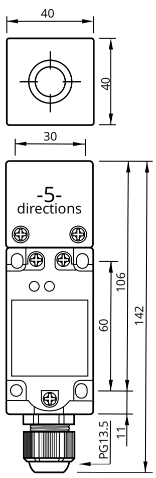
	unshielded nicht bündig 16×28×12 | 4 mm	unshielded nicht bündig 16×28×12 | 6 mm	unshielded nicht bündig 16×28×12 | 6 mm
			
	increased erhöht	extended erweitert	extended erweitert
			
			
Sensing Distance / Schaltabstand	4 mm	6 mm	6 mm
Housing Size / Gehäusegröße	16×28×12	16×28×12	16×28×12
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	< 8 mA	< 8 mA	< 8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	2000 Hz	2000 Hz	2000 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	PBT	PBT	PBT
Housing Material / Gehäusewerkstoff	PBT	PBT	PBT
Connection / Anschluss	conn. M8 Stecker M8	PVC, ultra-flex	conn. M8 Stecker M8
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	INS1628N4POS-M8	INS1628N6POS-A2P	INS1628N6POS-M8
Article Code PNP, NC	INS1628N4PCS-M8	INS1628N6PCS-A2P	INS1628N6PCS-M8
Article Code PNP, NO+NC			
Article Code NPN, NO	INS1628N4NOS-M8	INS1628N6NOS-A2P	INS1628N6NOS-M8
Article Code NPN, NC	INS1628N4NCS-M8	INS1628N6NCS-A2P	INS1628N6NCS-M8
Article Code NPN, NO+NC			

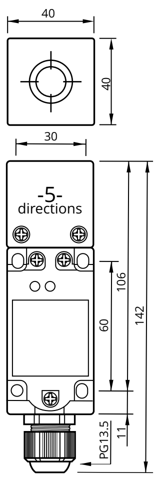
shielded bündig **40×40 mm | 15 mm**	shielded bündig **40×40 mm | 20 mm**	semi-shielded quasi-bündig **40×40 mm | 25 mm**	unshielded nicht bündig **40×40 mm | 30 mm**	unshielded nicht bündig **40×40 mm | 40 mm**
				
standard	increased erhöht	increased erhöht	increased erhöht	extended erweitert







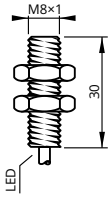
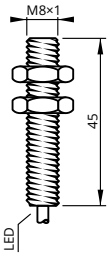
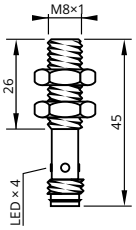


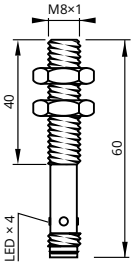
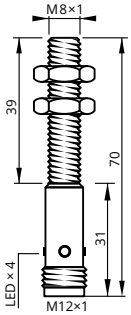
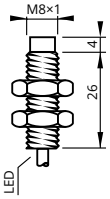
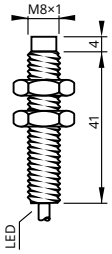
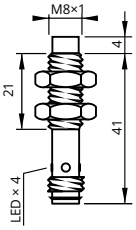


15 mm	20 mm	25 mm	30 mm	40 mm
40×40 mm	40×40 mm	40×40 mm	40×40 mm	40×40 mm
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
< 11 mA	< 11 mA	< 11 mA	< 11 mA	< 11 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
120 Hz	120 Hz	120 Hz	120 Hz	120 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
−25…+75 °C	−25…+75 °C	−25…+75 °C	−25…+75 °C	−25…+75 °C
IP67	IP67	IP67	IP67	IP67
PBT	PBT	PBT	PBT	PBT
PBT	PBT	PBT	PBT	PBT
terminal Klemme	terminal Klemme	terminal Klemme	terminal Klemme	terminal Klemme
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS40S15PCOL-PG13	INS40S20PCOL-PG13	INS40S25PCOL-PG13	INS40N30PCOL-PG13	INS40N40PCOL-PG13
INS40S15NCOL-PG13	INS40S20NCOL-PG13	INS40S25NCOL-PG13	INS40N30NCOL-PG13	INS40N40NCOL-PG13

Minor changes possible
Geringfügige Änderungen möglich

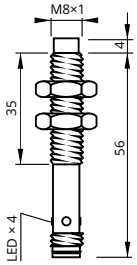
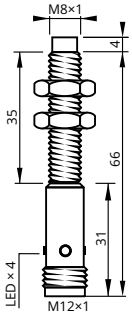
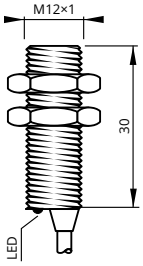
3-Wire Metal Face
3-Leiter Vollmetallhülse

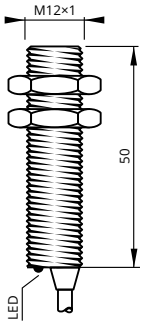
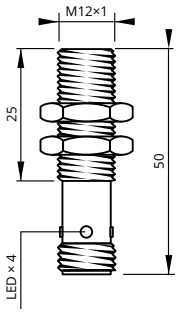
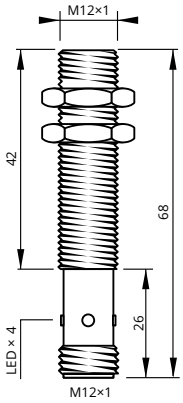
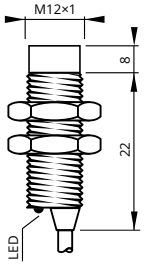
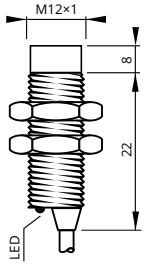
		shielded bündig **M8×1 | 2 mm**		shielded bündig **M8×1 | 2 mm**		shielded bündig **M8×1 | 2 mm**	
							
		increased erhöht		increased erhöht		increased erhöht	
							
Sensing Distance	Schaltabstand	2 mm		2 mm		2 mm	
Housing Size	Gehäusegröße	M8×1		M8×1		M8×1	
Operating Voltage	Betriebsspannung	10…30 V_{DC}		10…30 V_{DC}		10…30 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert	built-in	integriert	built-in	integriert
Current Consumption	Stromverbrauch	<8 mA		<8 mA		<8 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA		200 mA		200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in	integriert	built-in	integriert	built-in	integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA		<1.5 V @ 200 mA		<1.5 V @ 200 mA	
Switching Frequency	Schaltfrequenz	400 Hz		400 Hz		400 Hz	
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85	
Repeatability	Wiederholgenauigkeit	<1 % (S_n)		<1 % (S_n)		<1 % (S_n)	
Hysteresis	Hysterese	3…15 %		3…15 %		3…15 %	
Operating Temperature	Betriebstemperatur	–25…+75 °C		–25…+75 °C		–25…+75 °C	
Protection Class	Schutzklasse	IP69k, IP67 connector		IP69k, IP67 connector		IP69k, IP67 connector	
Sensing Face	Sensorfläche	SS303	Edelstahl	SS303	Edelstahl	SS303	Edelstahl
Housing Material	Gehäusewerkstoff	SS303	Edelstahl	SS303	Edelstahl	SS303	Edelstahl
Connection	Anschluss	PVC, ultra-flex		PVC, ultra-flex		conn. M8	Stecker M8
Switching Indicator	Schaltanzeige	built-in	integriert	built-in	integriert	built-in	integriert
Article Code PNP, NO	⎍	IVM8S2PO30-A2P		IVM8S2PO45-A2P		IVM8S2PO45-M8	
Article Code PNP, NC	⎍	IVM8S2PC30-A2P		IVM8S2PC45-A2P		IVM8S2PC45-M8	
Article Code NPN, NO	⎍	IVM8S2NO30-A2P		IVM8S2NO45-A2P		IVM8S2NO45-M8	
Article Code NPN, NC	⎍	IVM8S2NC30-A2P		IVM8S2NC45-A2P		IVM8S2NC45-M8	

shielded bündig **M8×1 | 2 mm**	shielded bündig **M8×1 | 2 mm**	unshielded nicht bündig **M8×1 | 3.5 mm**	unshielded nicht bündig **M8×1 | 3.5 mm**	unshielded nicht bündig **M8×1 | 3.5 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				
2 mm	2 mm	3.5 mm	3.5 mm	3.5 mm
M8×1	M8×1	M8×1	M8×1	M8×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
400 Hz	400 Hz	400 Hz	400 Hz	400 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
conn. M8 Stecker M8	conn. M12 Stecker M12	PVC, ultra-flex	PVC, ultra-flex	conn. M8 Stecker M8
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
IVM8S2PO60-M8	IVM8S2PO70-M12	IVM8N4PO30-A2P	IVM8N4PO45-A2P	IVM8N4PO45-M8
IVM8S2PC60-M8	IVM8S2PC70-M12	IVM8N4PC30-A2P	IVM8N4PC45-A2P	IVM8N4PC45-M8
IVM8S2NO60-M8	IVM8S2NO70-M12	IVM8N4NO30-A2P	IVM8N4NO45-A2P	IVM8N4NO45-M8
IVM8S2NC60-M8	IVM8S2NC70-M12	IVM8N4NC30-A2P	IVM8N4NC45-A2P	IVM8N4NC45-M8

Minor changes possible
Geringfügige Änderungen möglich

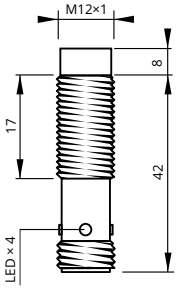
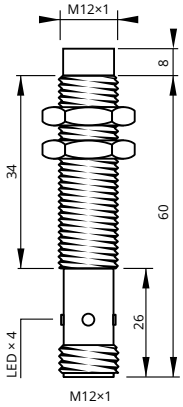
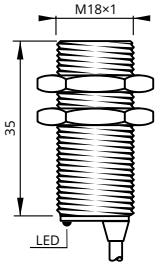
3-Wire Metal Face
3-Leiter Vollmetallhülse

	unshielded nicht bündig **M8×1 | 3.5 mm**	unshielded nicht bündig **M8×1 | 3.5 mm**	shielded bündig **M12×1 | 4 mm**
			
	increased erhöht	increased erhöht	increased erhöht
			
Sensing Distance / Schaltabstand	3.5 mm	3.5 mm	4 mm
Housing Size / Gehäusegröße	M8×1	M8×1	M12×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	400 Hz	400 Hz	500 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector
Sensing Face / Sensorfläche	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Housing Material / Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection / Anschluss	conn. M8 Stecker M8	conn. M12 Stecker M12	PVC, ultra-flex
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	IVM8N4PO60-M8	IVM8N4PO70-M12	IVM12S4PO30-A2P
Article Code PNP, NC	IVM8N4PC60-M8	IVM8N4PC70-M12	IVM12S4PC30-A2P
Article Code NPN, NO	IVM8N4NO60-M8	IVM8N4NO70-M12	IVM12S4NO30-A2P
Article Code NPN, NC	IVM8N4NC60-M8	IVM8N4NC70-M12	IVM12S4NC30-A2P

shielded bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 6 mm**	unshielded nicht bündig **M12×1 | 6 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				
4 mm	4 mm	4 mm	6 mm	6 mm
M12×1	M12×1	M12×1	M12×1	M12×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
500 Hz	500 Hz	500 Hz	500 Hz	500 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12	PVC, ultra-flex	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
IVM12S4PO50-A2P	IVM12S4PO50-M12	IVM12S4PO68-M12	IVM12N6PO30-A2P	IVM12N6PO50-A2P
IVM12S4PC50-A2P	IVM12S4PC50-M12	IVM12S4PC68-M12	IVM12N6PC30-A2P	IVM12N6PC50-A2P
IVM12S4NO50-A2P	IVM12S4NO50-M12	IVM12S4NO68-M12	IVM12N6NO30-A2P	IVM12N6NO50-A2P
IVM12S4NC50-A2P	IVM12S4NC50-M12	IVM12S4NC68-M12	IVM12N6NC30-A2P	IVM12N6NC50-A2P

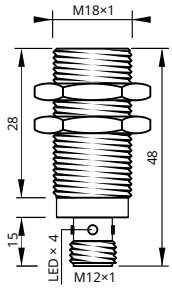
Minor changes possible
Geringfügige Änderungen möglich

3-Wire Metal Face
3-Leiter Vollmetallhülse

	unshielded nicht bündig **M12×1 | 6 mm**	unshielded nicht bündig **M12×1 | 6 mm**	shielded bündig **M18×1 | 8 mm**
			
	increased erhöht	increased erhöht	increased erhöht
			
Sensing Distance	Schaltabstand	6 mm	6 mm	8 mm
Housing Size	Gehäusegröße	M12×1	M12×1	M18×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	500 Hz	500 Hz	150 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector
Sensing Face	Sensorfläche	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Housing Material	Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection	Anschluss	conn. M12 Stecker M12	conn. M12 Stecker M12	PVC, ultra-flex
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	IVM12N6PO50-M12	IVM12N6PO68-M12	IVM18S8PO35-A2P
Article Code PNP, NC	⎍	IVM12N6PC50-M12	IVM12N6PC68-M12	IVM18S8PC35-A2P
Article Code NPN, NO	⎍	IVM12N6NO50-M12	IVM12N6NO68-M12	IVM18S8NO35-A2P
Article Code NPN, NC	⎍	IVM12N6NC50-M12	IVM12N6NC68-M12	IVM18S8NC35-A2P

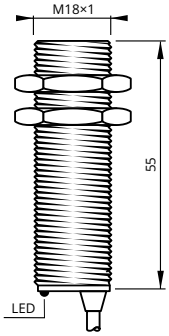
shielded
bündig
M18×1 | 8 mm

increased
erhöht



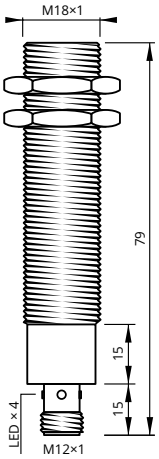
shielded
bündig
M18×1 | 8 mm

increased
erhöht



shielded
bündig
M18×1 | 8 mm

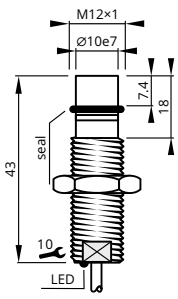
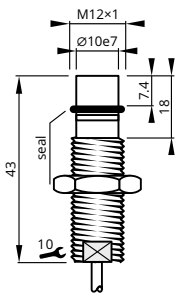
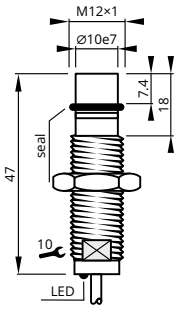
increased
erhöht



8 mm		8 mm		8 mm	
M18×1		M18×1		M18×1	
10…30 V_{DC}		10…30 V_{DC}		10…30 V_{DC}	
built-in	integriert	built-in	integriert	built-in	integriert
<8 mA		<8 mA		<8 mA	
200 mA		200 mA		200 mA	
built-in	integriert	built-in	integriert	built-in	integriert
<1.5 V @ 200 mA		<1.5 V @ 200 mA		<1.5 V @ 200 mA	
150 Hz		150 Hz		150 Hz	
Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85	
<1 % (S_n)		<1 % (S_n)		<1 % (S_n)	
3…15 %		3…15 %		3…15 %	
–25…+75 °C		–25…+75 °C		–25…+75 °C	
IP69k, IP67 connector		IP69k, IP67 connector		IP69k, IP67 connector	
SS303	Edelstahl	SS303	Edelstahl	SS303	Edelstahl
SS303	Edelstahl	SS303	Edelstahl	SS303	Edelstahl
conn. M12	Stecker M12	PVC, ultra-flex		conn. M12	Stecker M12
built-in	integriert	built-in	integriert	built-in	integriert
IVM18S8PO48-M12		IVM18S8PO55-A2P		IVM18S8PO79-M12	
IVM18S8PC48-M12		IVM18S8PC55-A2P		IVM18S8PC79-M12	
IVM18S8NO48-M12		IVM18S8NO55-A2P		IVM18S8NO79-M12	
IVM18S8NC48-M12		IVM18S8NC55-A2P		IVM18S8NC79-M12	

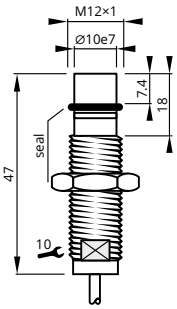
Minor changes possible
Geringfügige Änderungen möglich

3-Wire High Pressure
3-Leiter Druckfest

	shielded bündig **M12×1 | 1.5 mm**	shielded bündig **M12×1 | 1.5 mm**	shielded bündig **M12×1 | 1.5 mm**
			
	standard 500 bar · 7251 psi	standard 500 bar · 7251 psi	standard 500 bar · 7251 psi
			
Sensing Distance / Schaltabstand	1.5 mm	1.5 mm	1.5 mm
Max. Pressure / Druckbelastbarkeit	500 bar · 7251 psi	500 bar · 7251 psi	500 bar · 7251 psi
Housing Size / Gehäusegröße	M12×1	M12×1	M12×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	1000 Hz	1000 Hz	1000 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility / Wiederholgenauigkeit	<3 %	<3 %	<3 %
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+70 °C	–25…+70 °C	–25…+70 °C
Protection Class / Schutzklasse	IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67
Sensing Face / Sensorfläche	ceramic Keramik	ceramic Keramik	ceramic Keramik
Housing Material / Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection / Anschluss	PVC, ultra-flex	PVC, ultra-flex	PVC, ultra-flex
Switching Indicator / Schaltanzeige	built-in integriert		built-in integriert
Article Code PNP, NO	IHD12S1.5PO43-A2P	IHD12S1.5PO43-N2P	IHD12S1.5PO47-A2P
Article Code PNP, NC	IHD12S1.5PC43-A2P	IHD12S1.5PC43-N2P	IHD12S1.5PC47-A2P
Article Code NPN, NO	IHD12S1.5NO43-A2P	IHD12S1.5NO43-N2P	IHD12S1.5NO47-A2P
Article Code NPN, NC	IHD12S1.5NC43-A2P	IHD12S1.5NC43-N2P	IHD12S1.5NC47-A2P

shielded
bündig
M12×1 | 1.5 mm

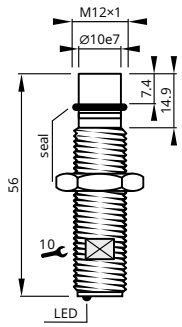
standard
500 bar · 7251 psi



1.5 mm	
500 bar · 7251 psi	
M12×1	
10…30 V_{DC}	
built-in	integriert
<8 mA	
200 mA	
built-in	integriert
<1.5 V @ 200 mA	
1000 Hz	
Alu 0.45 · Brs 0.50 · VA 0.85	
<3 %	
3…15 %	
–25…+70 °C	
IP 69k, IP 67	
ceramic	Keramik
SS303	Edelstahl
PVC, ultra-flex	
IHD12S1.5PO47-N2P	
IHD12S1.5PC47-N2P	
IHD12S1.5NO47-N2P	
IHD12S1.5NC47-N2P	

shielded
bündig
M12×1 | 1.5 mm

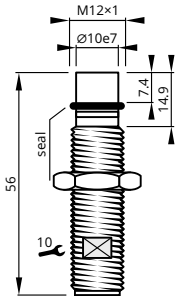
standard
500 bar · 7251 psi



1.5 mm	
500 bar · 7251 psi	
M12×1	
10…30 V_{DC}	
built-in	integriert
<8 mA	
200 mA	
built-in	integriert
<1.5 V @ 200 mA	
1000 Hz	
Alu 0.45 · Brs 0.50 · VA 0.85	
<3 %	
3…15 %	
–25…+70 °C	
IP 69k, IP 67	
ceramic	Keramik
SS303	Edelstahl
conn. M12	Stecker M12
built-in	integriert
IHD12S1.5PO56-M12	
IHD12S1.5PC56-M12	
IHD12S1.5NO56-M12	
IHD12S1.5NC56-M12	

shielded
bündig
M12×1 | 1.5 mm

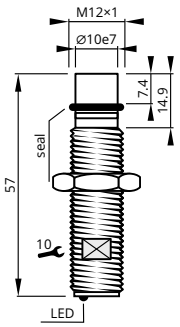
standard
500 bar · 7251 psi



1.5 mm	
500 bar · 7251 psi	
M12×1	
10…30 V_{DC}	
built-in	integriert
<8 mA	
200 mA	
built-in	integriert
<1.5 V @ 200 mA	
1000 Hz	
Alu 0.45 · Brs 0.50 · VA 0.85	
<3 %	
3…15 %	
–25…+70 °C	
IP 69k, IP 67	
ceramic	Keramik
SS303	Edelstahl
conn. M12	Stecker M12
IHD12S1.5PO56-N12	
IHD12S1.5PC56-N12	
IHD12S1.5NO56-N12	
IHD12S1.5NC56-N12	

shielded
bündig
M12×1 | 1.5 mm

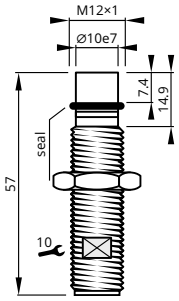
standard
500 bar · 7251 psi



1.5 mm	
500 bar · 7251 psi	
M12×1	
10…30 V_{DC}	
built-in	integriert
<8 mA	
200 mA	
built-in	integriert
<1.5 V @ 200 mA	
1000 Hz	
Alu 0.45 · Brs 0.50 · VA 0.85	
<3 %	
3…15 %	
–25…+70 °C	
IP 69k, IP 67	
ceramic	Keramik
SS303	Edelstahl
conn. M12	Stecker M12
built-in	integriert
IHD12S1.5PO57-M12	
IHD12S1.5PC57-M12	
IHD12S1.5NO57-M12	
IHD12S1.5NC57-M12	

shielded
bündig
M12×1 | 1.5 mm

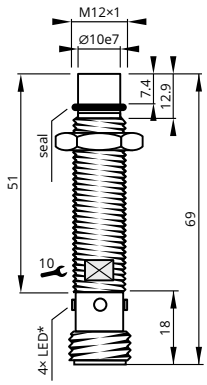
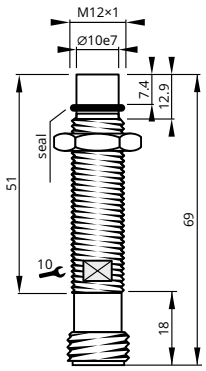
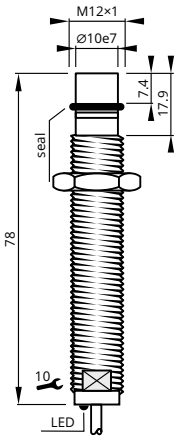
standard
500 bar · 7251 psi



1.5 mm	
500 bar · 7251 psi	
M12×1	
10…30 V_{DC}	
built-in	integriert
<8 mA	
200 mA	
built-in	integriert
<1.5 V @ 200 mA	
1000 Hz	
Alu 0.45 · Brs 0.50 · VA 0.85	
<3 %	
3…15 %	
–25…+70 °C	
IP 69k, IP 67	
ceramic	Keramik
SS303	Edelstahl
conn. M12	Stecker M12
IHD12S1.5PO57-N12	
IHD12S1.5PC57-N12	
IHD12S1.5NO57-N12	
IHD12S1.5NC57-N12	

Minor changes possible
Geringfügige Änderungen möglich

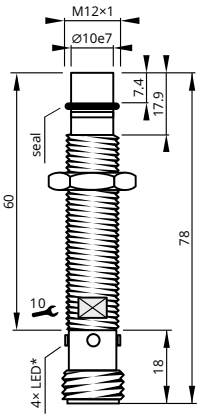
3-Wire High Pressure
3-Leiter Druckfest

shielded bündig **M12×1 | 1.5 mm**	shielded bündig **M12×1 | 1.5 mm**	shielded bündig **M12×1 | 1.5 mm**
		
standard 500 bar · 7251 psi	standard 500 bar · 7251 psi	standard 500 bar · 7251 psi
		

Sensing Distance	Schaltabstand	1.5 mm		1.5 mm		1.5 mm	
Max. Pressure	Druckbelastbarkeit	500 bar · 7251 psi		500 bar · 7251 psi		500 bar · 7251 psi	
Housing Size	Gehäusegröße	M12×1		M12×1		M12×1	
Operating Voltage	Betriebsspannung	10…30 V_{DC}		10…30 V_{DC}		10…30 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert	built-in	integriert	built-in	integriert
Current Consumption	Stromverbrauch	<8 mA		<8 mA		<8 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA		200 mA		200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in	integriert	built-in	integriert	built-in	integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA		<1.5 V @ 200 mA		<1.5 V @ 200 mA	
Switching Frequency	Schaltfrequenz	1000 Hz		1000 Hz		1000 Hz	
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85	
Repeatibility	Wiederholgenauigkeit	<3 %		<3 %		<3 %	
Hysteresis	Hysterese	3…15 %		3…15 %		3…15 %	
Operating Temperature	Betriebstemperatur	–25…+70 °C		–25…+70 °C		–25…+70 °C	
Protection Class	Schutzklasse	IP 69k, IP 67		IP 69k, IP 67		IP 69k, IP 67	
Sensing Face	Sensorfläche	ceramic	Keramik	ceramic	Keramik	ceramic	Keramik
Housing Material	Gehäusewerkstoff	SS303	Edelstahl	SS303	Edelstahl	SS303	Edelstahl
Connection	Anschluss	conn. M12	Stecker M12	conn. M12	Stecker M12	PVC, ultra-flex	
Switching Indicator	Schaltanzeige	built-in	integriert			built-in	integriert
Article Code PNP, NO	—/—	IHD12S1.5PO69-M12		IHD12S1.5PO69-N12		IHD12S1.5PO78-A2P	
Article Code PNP, NC	—/—	IHD12S1.5PC69-M12		IHD12S1.5PC69-N12		IHD12S1.5PC78-A2P	
Article Code NPN, NO	—/—	IHD12S1.5NO69-M12		IHD12S1.5NO69-N12		IHD12S1.5NO78-A2P	
Article Code NPN, NC	—/—	IHD12S1.5NC69-M12		IHD12S1.5NC69-N12		IHD12S1.5NC78-A2P	

shielded
bündig
M12×1 | 1.5 mm

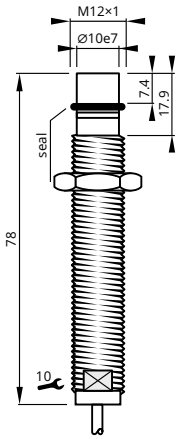
standard
500 bar · 7251 psi



1.5 mm	
500 bar · 7251 psi	
M12×1	
10…30 V_{DC}	
built-in	integriert
<8 mA	
200 mA	
built-in	integriert
<1.5 V @ 200 mA	
1000 Hz	
Alu 0.45 · Brs 0.50 · VA 0.85	
<3 %	
3…15 %	
–25…+70 °C	
IP 69k, IP 67	
ceramic	Keramik
SS303	Edelstahl
conn. M12	Stecker M12
built-in	integriert
IHD12S1.5PO78-M12	
IHD12S1.5PC78-M12	
IHD12S1.5NO78-M12	
IHD12S1.5NC78-M12	

shielded
bündig
M12×1 | 1.5 mm

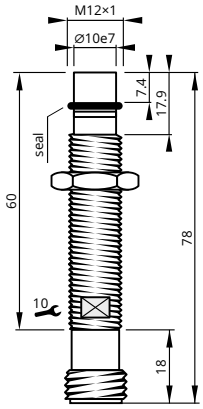
standard
500 bar · 7251 psi



1.5 mm	
500 bar · 7251 psi	
M12×1	
10…30 V_{DC}	
built-in	integriert
<8 mA	
200 mA	
built-in	integriert
<1.5 V @ 200 mA	
1000 Hz	
Alu 0.45 · Brs 0.50 · VA 0.85	
<3 %	
3…15 %	
–25…+70 °C	
IP 69k, IP 67	
ceramic	Keramik
SS303	Edelstahl
PVC, ultra-flex	
IHD12S1.5PO78-N2P	
IHD12S1.5PC78-N2P	
IHD12S1.5NO78-N2P	
IHD12S1.5NC78-N2P	

shielded
bündig
M12×1 | 1.5 mm

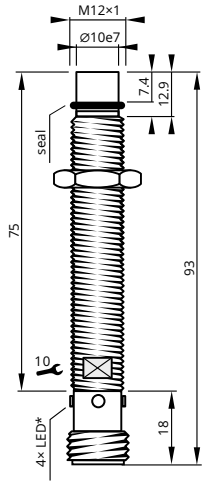
standard
500 bar · 7251 psi



1.5 mm	
500 bar · 7251 psi	
M12×1	
10…30 V_{DC}	
built-in	integriert
<8 mA	
200 mA	
built-in	integriert
<1.5 V @ 200 mA	
1000 Hz	
Alu 0.45 · Brs 0.50 · VA 0.85	
<3 %	
3…15 %	
–25…+70 °C	
IP 69k, IP 67	
ceramic	Keramik
SS303	Edelstahl
conn. M12	Stecker M12
IHD12S1.5PO78-N12	
IHD12S1.5PC78-N12	
IHD12S1.5NO78-N12	
IHD12S1.5NC78-N12	

shielded
bündig
M12×1 | 1.5 mm

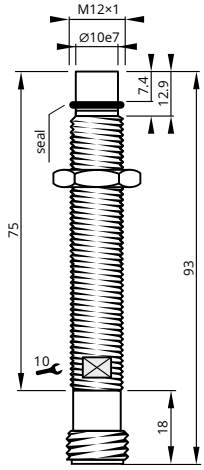
standard
500 bar · 7251 psi



1.5 mm	
500 bar · 7251 psi	
M12×1	
10…30 V_{DC}	
built-in	integriert
<8 mA	
200 mA	
built-in	integriert
<1.5 V @ 200 mA	
1000 Hz	
Alu 0.45 · Brs 0.50 · VA 0.85	
<3 %	
3…15 %	
–25…+70 °C	
IP 69k, IP 67	
ceramic	Keramik
SS303	Edelstahl
conn. M12	Stecker M12
built-in	integriert
IHD12S1.5PO93-M12	
IHD12S1.5PC93-M12	
IHD12S1.5NO93-M12	
IHD12S1.5NC93-M12	

shielded
bündig
M12×1 | 1.5 mm

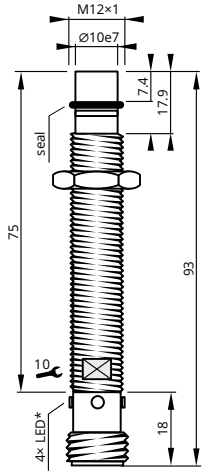
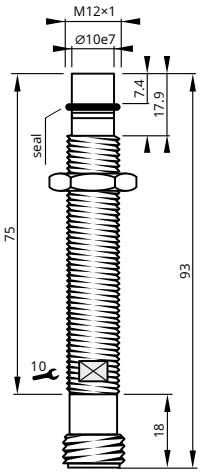
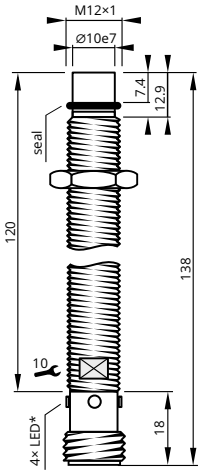
standard
500 bar · 7251 psi

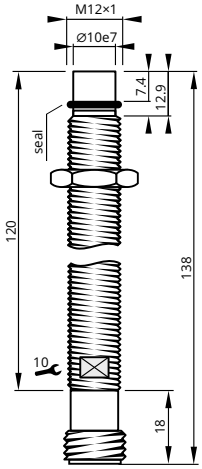
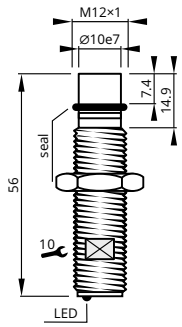
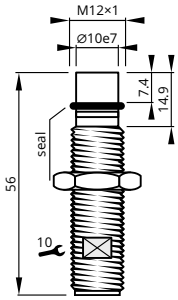
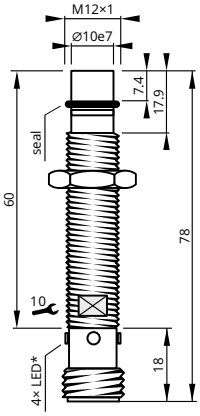
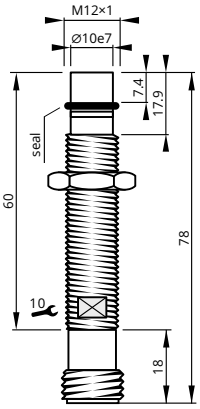


1.5 mm	
500 bar · 7251 psi	
M12×1	
10…30 V_{DC}	
built-in	integriert
<8 mA	
200 mA	
built-in	integriert
<1.5 V @ 200 mA	
1000 Hz	
Alu 0.45 · Brs 0.50 · VA 0.85	
<3 %	
3…15 %	
–25…+70 °C	
IP 69k, IP 67	
ceramic	Keramik
SS303	Edelstahl
conn. M12	Stecker M12
IHD12S1.5PO93-N12	
IHD12S1.5PC93-N12	
IHD12S1.5NO93-N12	
IHD12S1.5NC93-N12	

Minor changes possible
Geringfügige Änderungen möglich

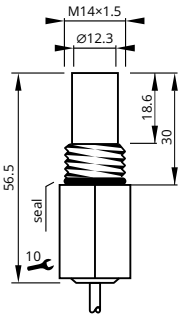
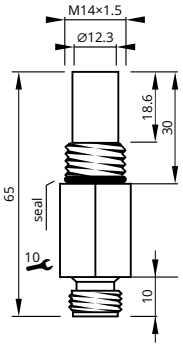
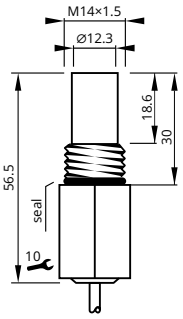
3-Wire High Pressure
3-Leiter Druckfest

	shielded bündig **M12×1 | 1.5 mm**	shielded bündig **M12×1 | 1.5 mm**	shielded bündig **M12×1 | 1.5 mm**
			
	standard 500 bar · 7251 psi	standard 500 bar · 7251 psi	standard 500 bar · 7251 psi
			
Sensing Distance / Schaltabstand	1.5 mm	1.5 mm	1.5 mm
Max. Pressure / Druckbelastbarkeit	500 bar · 7251 psi	500 bar · 7251 psi	500 bar · 7251 psi
Housing Size / Gehäusegröße	M12×1	M12×1	M12×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	1000 Hz	1000 Hz	1000 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility / Wiederholgenauigkeit	<3 %	<3 %	<3 %
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+70 °C	–25…+70 °C	–25…+70 °C
Protection Class / Schutzklasse	IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67
Sensing Face / Sensorfläche	ceramic Keramik	ceramic Keramik	ceramic Keramik
Housing Material / Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection / Anschluss	conn. M12 Stecker M12	conn. M12 Stecker M12	conn. M12 Stecker M12
Switching Indicator / Schaltanzeige	built-in integriert		built-in integriert
Article Code PNP, NO	IHD12S1.5PO94-M12	IHD12S1.5PO94-N12	IHD12S1.5PO138-M12
Article Code PNP, NC	IHD12S1.5PC94-M12	IHD12S1.5PC94-N12	IHD12S1.5PC138-M12
Article Code NPN, NO	IHD12S1.5NO94-M12	IHD12S1.5NO94-N12	IHD12S1.5NO138-M12
Article Code NPN, NC	IHD12S1.5NC94-M12	IHD12S1.5NC94-N12	IHD12S1.5NC138-M12

shielded bündig **M12×1 | 1.5 mm**	shielded bündig **M12×1 | 2 mm**	shielded bündig **M12×1 | 2 mm**	shielded bündig **M12×1 | 2 mm**	shielded bündig **M12×1 | 2 mm**
				
standard 500 bar · 7251 psi	increased 500 bar · 7251 psi	increased 500 bar · 7251 psi	increased 500 bar · 7251 psi	increased 500 bar · 7251 psi
				
1.5 mm	2 mm	2 mm	2 mm	2 mm
500 bar · 7251 psi	500 bar · 7251 psi	500 bar · 7251 psi	500 bar · 7251 psi	500 bar · 7251 psi
M12×1	M12×1	M12×1	M12×1	M12×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
1000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<3 %	<3 %	<3 %	<3 %	<3 %
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C
IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67
ceramic Keramik	ceramic Keramik	ceramic Keramik	ceramic Keramik	ceramic Keramik
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
conn. M12 Stecker M12	conn. M12 Stecker M12	conn. M12 Stecker M12	conn. M12 Stecker M12	conn. M12 Stecker M12
	built-in integriert		built-in integriert	
IHD12S1.5PO138-N12	IHD12S2PO56-M12	IHD12S2PO56-N12	IHD12S2PO78-M12	IHD12S2PO78-N12
IHD12S1.5PC138-N12	IHD12S2PC56-M12	IHD12S2PC56-N12	IHD12S2PC78-M12	IHD12S2PC78-N12
IHD12S1.5NO138-N12	IHD12S2NO56-M12	IHD12S2NO56-N12	IHD12S2NO78-M12	IHD12S2NO78-N12
IHD12S1.5NC138-N12	IHD12S2NC56-M12	IHD12S2NC56-N12	IHD12S2NC78-M12	IHD12S2NC78-N12

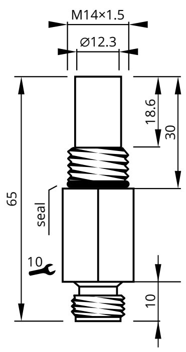
Minor changes possible
Geringfügige Änderungen möglich

3-Wire High Pressure
3-Leiter Druckfest

	shielded bündig **M14×1.5 | 3 mm**	shielded bündig **M14×1.5 | 3 mm**	shielded bündig **M14×1.5 | 3 mm**
			
	standard 500 bar · 7251 psi	standard 500 bar · 7251 psi	standard 1000 bar · 14503 psi
			
Sensing Distance / Schaltabstand	3 mm	3 mm	3 mm
Max. Pressure / Druckbelastbarkeit	500 bar · 7251 psi	500 bar · 7251 psi	1000 bar · 14503 psi
Housing Size / Gehäusegröße	M14×1.5	M14×1.5	M14×1.5
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	1000 Hz	1000 Hz	500 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility / Wiederholgenauigkeit	<3 %	<3 %	<3 %
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+70 °C	–25…+70 °C	–25…+70 °C
Protection Class / Schutzklasse	IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67
Sensing Face / Sensorfläche	ceramic Keramik	ceramic Keramik	SS303 Edelstahl
Housing Material / Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection / Anschluss	PVC, ultraflex	conn. M12 Stecker M12	PVC, ultraflex
Switching Indicator / Schaltanzeige			
Article Code PNP, NO	IHD14-S3PO56-N2P	IHD14-S3PO65-N12	IHD14-S3PO56S-N2P
Article Code PNP, NC	IHD14-S3PC56-N2P	IHD14-S3PC65-N12	IHD14-S3PC56S-N2P
Article Code NPN, NO	IHD14-S3NO56-N2P	IHD14-S3NO65-N12	IHD14-S3NO56S-N2P
Article Code NPN, NC	IHD14-S3NC56-N2P	IHD14-S3NC65-N12	IHD14-S3NC56S-N2P

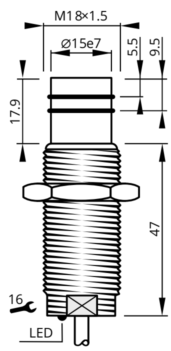
shielded
bündig
M14×1.5 | 3 mm

standard
1000 bar · 14503 psi



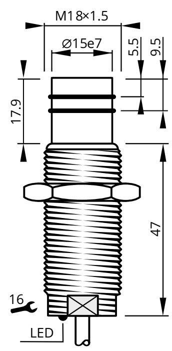
shielded
bündig
M14×1.5 | 3 mm

standard
1000 bar · 14503 psi



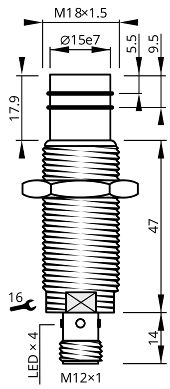
shielded
bündig
M14×1.5 | 3 mm

standard
1000 bar · 14503 psi



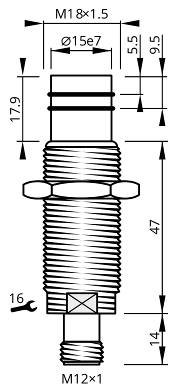
shielded
bündig
M14×1.5 | 3 mm

standard
1000 bar · 14503 psi



shielded
bündig
M14×1.5 | 3 mm

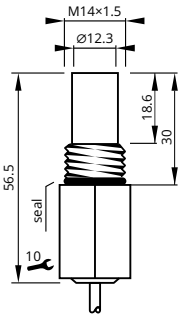
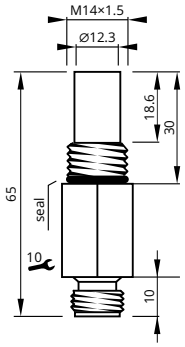
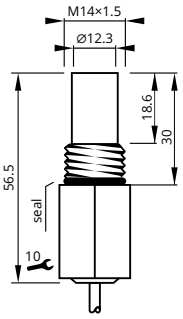
standard
1000 bar · 14503 psi



3 mm	3 mm	3 mm	3 mm	3 mm
1000 bar · 14503 psi	1000 bar · 14503 psi	1000 bar · 14503 psi	1000 bar · 14503 psi	1000 bar · 14503 psi
M14×1.5	M14×1.5	M14×1.5	M14×1.5	M14×1.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
500 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<3 %	<3 %	<3 %	<3 %	<3 %
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
−25…+70 °C	−25…+70 °C	−25…+70 °C	−25…+70 °C	−25…+70 °C
IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67
SS303 Edelstahl	ceramic Keramik	ceramic Keramik	ceramic Keramik	ceramic Keramik
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
conn. M12 Stecker M12	PVC, ultraflex	PVC, ultraflex	conn. M12 Stecker M12	conn. M12 Stecker M12
	built-in integriert		built-in integriert	
IHD14-S3PO65S-N12	IHD18S3PO65S-A2P	IHD18S3PO65S-N2P	IHD18S3PO79S-M12	IHD18S3PO79S-N12
IHD14-S3PC65S-N12	IHD18S3PC65S-A2P	IHD18S3PC65S-N2P	IHD18S3PC79S-M12	IHD18S3PC79S-N12
IHD14-S3NO65S-N12	IHD18S3NO65S-A2P	IHD18S3NO65S-N2P	IHD18S3NO79S-M12	IHD18S3NO79S-N12
IHD14-S3NC65S-N12	IHD18S3NC65S-A2P	IHD18S3NC65S-N2P	IHD18S3NC79S-M12	IHD18S3NC79S-N12

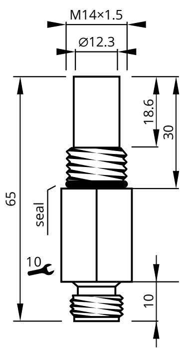
Minor changes possible
Geringfügige Änderungen möglich

3-Wire High Pressure
3-Leiter Druckfest

	shielded bündig **M14×1.5 | 3 mm**	shielded bündig **M14×1.5 | 3 mm**	shielded bündig **M14×1.5 | 3 mm**
			
	standard 500 bar · 7251 psi	standard 500 bar · 7251 psi	standard 1000 bar · 14503 psi
			
Sensing Distance / Schaltabstand	3 mm	3 mm	3 mm
Max. Pressure / Druckbelastbarkeit	500 bar · 7251 psi	500 bar · 7251 psi	1000 bar · 14503 psi
Housing Size / Gehäusegröße	M14×1.5	M14×1.5	M14×1.5
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	1000 Hz	1000 Hz	500 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility / Wiederholgenauigkeit	<3 %	<3 %	<3 %
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+70 °C	–25…+70 °C	–25…+70 °C
Protection Class / Schutzklasse	IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67
Sensing Face / Sensorfläche	ceramic Keramik	ceramic Keramik	SS303 Edelstahl
Housing Material / Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection / Anschluss	PVC, ultraflex	conn. M12 Stecker M12	PVC, ultraflex
Switching Indicator / Schaltanzeige			
Article Code PNP, NO		IHD14S3PO56-N2P	IHD14S3PO65-N12	IHD14S3PO56S-N2P
Article Code PNP, NC		IHD14S3PC56-N2P	IHD14S3PC65-N12	IHD14S3PC56S-N2P
Article Code NPN, NO		IHD14S3NO56-N2P	IHD14S3NO65-N12	IHD14S3NO56S-N2P
Article Code NPN, NC		IHD14S3NC56-N2P	IHD14S3NC65-N12	IHD14S3NC56S-N2P

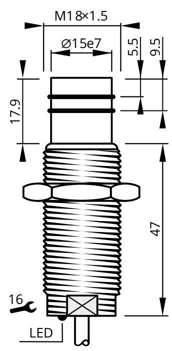
shielded
bündig
M14×1.5 | 3 mm

standard
1000 bar · 14503 psi



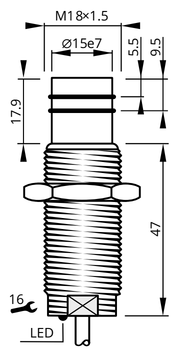
shielded
bündig
M14×1.5 | 3 mm

standard
1000 bar · 14503 psi



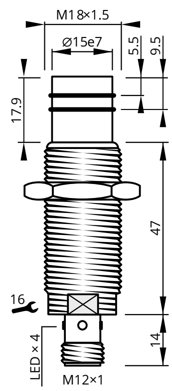
shielded
bündig
M14×1.5 | 3 mm

standard
1000 bar · 14503 psi



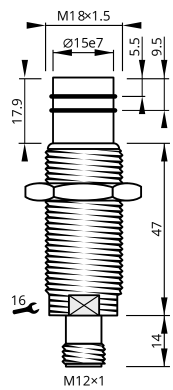
shielded
bündig
M14×1.5 | 3 mm

standard
1000 bar · 14503 psi



shielded
bündig
M14×1.5 | 3 mm

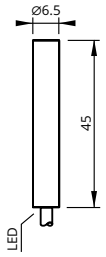
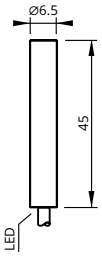
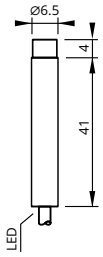
standard
1000 bar · 14503 psi



3 mm	3 mm	3 mm	3 mm	3 mm
1000 bar · 14503 psi	1000 bar · 14503 psi	1000 bar · 14503 psi	1000 bar · 14503 psi	1000 bar · 14503 psi
M14×1.5	M14×1.5	M14×1.5	M14×1.5	M14×1.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
500 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<3 %	<3 %	<3 %	<3 %	<3 %
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C
IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67
SS303 Edelstahl	ceramic Keramik	ceramic Keramik	ceramic Keramik	ceramic Keramik
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
conn. M12 Stecker M12	PVC, ultraflex	PVC, ultraflex	conn. M12 Stecker M12	conn. M12 Stecker M12
	built-in integriert		built-in integriert	
IHD14S3PO65S-N12	IHD18S3PO65S-A2P	IHD18S3PO65S-N2P	IHD18S3PO79S-M12	IHD18S3PO79S-N12
IHD14S3PC65S-N12	IHD18S3PC65S-A2P	IHD18S3PC65S-N2P	IHD18S3PC79S-M12	IHD18S3PC79S-N12
IHD14S3NO65S-N12	IHD18S3NO65S-A2P	IHD18S3NO65S-N2P	IHD18S3NO79S-M12	IHD18S3NO79S-N12
IHD14S3NC65S-N12	IHD18S3NC65S-A2P	IHD18S3NC65S-N2P	IHD18S3NC79S-M12	IHD18S3NC79S-N12

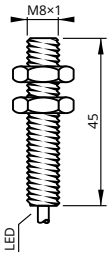
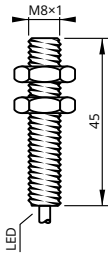
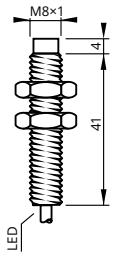
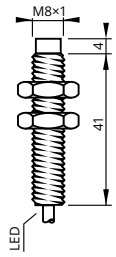
Minor changes possible
Geringfügige Änderungen möglich

3-Wire High Temperature
3-Leiter Hochtemperatur

shielded bündig **Ø6.5 | 2 mm**	shielded bündig **Ø6.5 | 2 mm**	unshielded nicht bündig **Ø6.5 | 4 mm**
		
increased · erhöht 120 °C · 248 °F	increased · erhöht 120 °C · 248 °F	increased · erhöht 120 °C · 248 °F
		

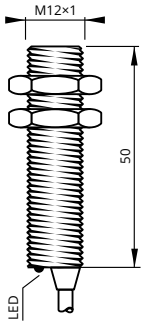
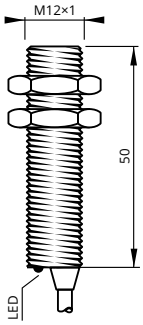
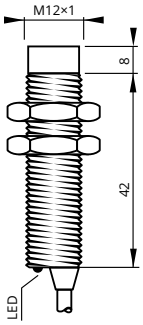
Sensing Distance	Schaltabstand	2 mm		2 mm		4 mm	
Max Temperature	Höchsttemperatur	120 °C · 248 °F		120 °C · 248 °F		120 °C · 248 °F	
Housing Size	Gehäusegröße	Ø6.5		Ø6.5		Ø6.5	
Operating Voltage	Betriebsspannung	10…30 V_{DC}		10…30 V_{DC}		10…30 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert	built-in	integriert	built-in	integriert
Current Consumption	Stromverbrauch	<8 mA		<8 mA		<8 mA	
Current Load Capability	Ausgangsbelastbarkeit	120 mA		120 mA		120 mA	
Short Circuit Protection	Kurzschlussschutz	built-in	integriert	built-in	integriert	built-in	integriert
Voltage Drop	Spannungsabfall	<2V @ 120 mA		<2V @ 120 mA		<2V @ 120 mA	
Switching Frequency	Schaltfrequenz	800 Hz		800 Hz		500 Hz	
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85	
Repeatibility	Wiederholgenauigkeit	<3 %		<3 %		<3 %	
Hysteresis	Hysterese	3…15 %		3…15 %		3…15 %	
Operating Temperature	Betriebstemperatur	–25…+120 °C		–25…+120 °C		–25…+120 °C	
Protection Class	Schutzklasse	IP 67		IP 67		IP 67	
Sensing Face	Sensorfläche	PTFE		PTFE		PTFE	
Housing Material	Gehäusewerkstoff	SS303	Edelstahl	SS303	Edelstahl	SS303	Edelstahl
Connection	Anschluss	silicone	Silikon	PTFE		silicone	Silikon
Switching Indicator	Schaltanzeige	built-in*	integriert*	built-in*	integriert*	built-in*	integriert*
Article Code PNP, NO		IHHD6S2PO45A-A2S		IHHD6S2PO45A-A2T		IHHD6N4PO45A-A2S	
Article Code PNP, NC		IHHD6S2PC45A-A2S		IHHD6S2PC45A-A2T		IHHD6N4PC45A-A2S	
Article Code NPN, NO		IHHD6S2NO45A-A2S		IHHD6S2NO45A-A2T		IHHD6N4NO45A-A2S	
Article Code NPN, NC		IHHD6S2NC45A-A2S		IHHD6S2NC45A-A2T		IHHD6N4NC45A-A2S	

* Only for mechanical set-up. LED may die if operated beyond 120 °C (248 °F). The LED functionality is not covered by warranty.
* Nur zur mechanischen Einstellung. Die LED kann bei Temperaturen über 120 °C ausfallen. Keine Garantie auf die LED.

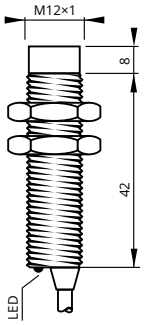
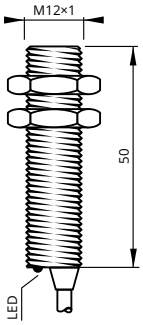
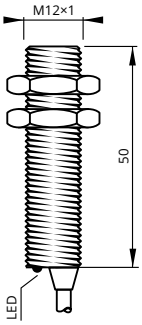
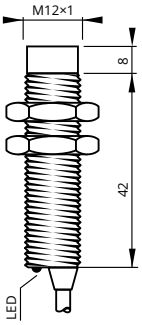
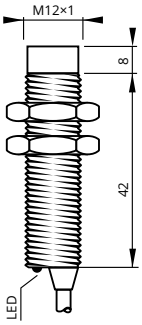
unshielded nicht bündig **Ø6.5 | 4 mm**	shielded bündig **M8×1 | 2 mm**	shielded bündig **M8×1 | 2 mm**	unshielded nicht bündig **M8×1 | 4 mm**	unshielded nicht bündig **M8×1 | 4 mm**
				
increased · erhöht 120 °C · 248 °F	increased · erhöht 120 °C · 248 °F	increased · erhöht 120 °C · 248 °F	increased · erhöht 120 °C · 248 °F	increased · erhöht 120 °C · 248 °F
				
4 mm	2 mm	2 mm	4 mm	4 mm
120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F
Ø6.5	M8×1	M8×1	M8×1	M8×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
120 mA	120 mA	120 mA	120 mA	120 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2V @ 120 mA	<2V @ 120 mA	<2V @ 120 mA	<2V @ 120 mA	<2V @ 120 mA
500 Hz	800 Hz	800 Hz	500 Hz	500 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<3 %	<3 %	<3 %	<3 %	<3 %
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+120 °C	–25…+120 °C	–25…+120 °C	–25…+120 °C	–25…+120 °C
IP 67	IP 67	IP 67	IP 67	IP 67
PTFE	PTFE	PTFE	PTFE	PTFE
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
PTFE	silicone Silikon	PTFE	silicone Silikon	PTFE
built-in* integriert*	built-in* integriert*	built-in* integriert*	built-in* integriert*	built-in* integriert*
IHHD6N4PO45A-A2T	IHH8S2PO45A-A2S	IHH8S2PO45A-A2T	IHH8N4PO45A-A2S	IHH8N4PO45A-A2T
IHHD6N4PC45A-A2T	IHH8S2PC45A-A2S	IHH8S2PC45A-A2T	IHH8N4PC45A-A2S	IHH8N4PC45A-A2T
IHHD6N4NO45A-A2T	IHH8S2NO45A-A2S	IHH8S2NO45A-A2T	IHH8N4NO45A-A2S	IHH8N4NO45A-A2T
IHHD6N4NC45A-A2T	IHH8S2NC45A-A2S	IHH8S2NC45A-A2T	IHH8N4NC45A-A2S	IHH8N4NC45A-A2T

Minor changes possible
Geringfügige Änderungen möglich

3-Wire High Temperature
3-Leiter Hochtemperatur

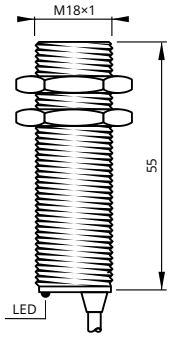
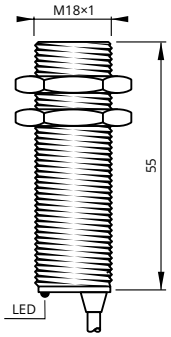
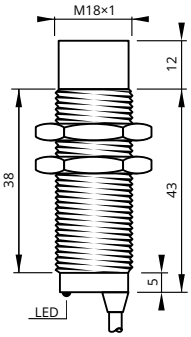
	shielded bündig **M12×1 | 2 mm**	shielded bündig **M12×1 | 2 mm**	unshielded nicht bündig **M12×1 | 4 mm**
			
	standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F
			
Sensing Distance / Schaltabstand	2 mm	2 mm	4 mm
Max Temperature / Höchsttemperatur	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F
Housing Size / Gehäusegröße	M12×1	M12×1	M12×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	120 mA	120 mA	120 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<2V @ 120 mA	<2V @ 120 mA	<2V @ 120 mA
Switching Frequency / Schaltfrequenz	1000 Hz	1000 Hz	800 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility / Wiederholgenauigkeit	<3 %	<3 %	<3 %
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+120 °C	–25…+120 °C	–25…+120 °C
Protection Class / Schutzklasse	IP 67	IP 67	IP 67
Sensing Face / Sensorfläche	PTFE	PTFE	PTFE
Housing Material / Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection / Anschluss	silicone Silikon	PTFE	silicone Silikon
Switching Indicator / Schaltanzeige	built-in* integriert*	built-in* integriert*	built-in* integriert*
Article Code PNP, NO	IHH12S2PO50A-A2S	IHH12S2PO50A-A2T	IHH12N4PO50A-A2S
Article Code PNP, NC	IHH12S2PC50A-A2S	IHH12S2PC50A-A2T	IHH12N4PC50A-A2S
Article Code NPN, NO	IHH12S2NO50A-A2S	IHH12S2NO50A-A2T	IHH12N4NO50A-A2S
Article Code NPN, NC	IHH12S2NC50A-A2S	IHH12S2NC50A-A2T	IHH12N4NC50A-A2S

* Only for mechanical set-up. LED may die if operated beyond 120 °C (248 °F). The LED functionality is not covered by warranty.
* Nur zur mechanischen Einstellung. Die LED kann bei Temperaturen über 120 °C ausfallen. Keine Garantie auf die LED.

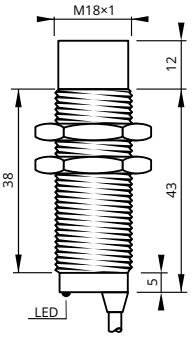
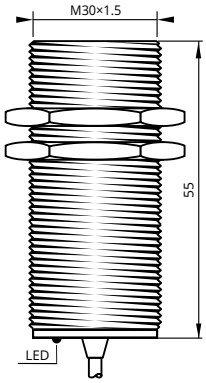
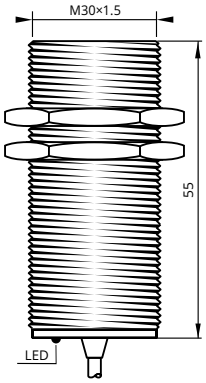
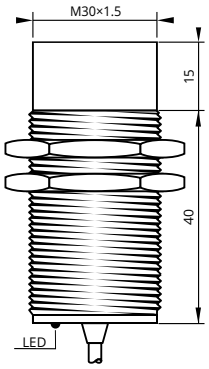
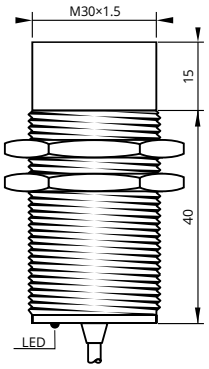
unshielded nicht bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 8 mm**
				
standard 120 °C · 248 °F	increased · erhöht 120 °C · 248 °F	increased · erhöht 120 °C · 248 °F	increased · erhöht 120 °C · 248 °F	increased · erhöht 120 °C · 248 °F
				
4 mm	4 mm	4 mm	8 mm	8 mm
120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F
M12×1	M12×1	M12×1	M12×1	M12×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
120 mA	120 mA	120 mA	120 mA	120 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2V @ 120 mA	<2V @ 120 mA	<2V @ 120 mA	<2V @ 120 mA	<2V @ 120 mA
800 Hz	800 Hz	800 Hz	500 Hz	500 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<3 %	<3 %	<3 %	<3 %	<3 %
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+120 °C	–25…+120 °C	–25…+120 °C	–25…+120 °C	–25…+120 °C
IP 67	IP 67	IP 67	IP 67	IP 67
PTFE	PTFE	PTFE	PTFE	PTFE
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
PTFE	silicone Silikon	PTFE	silicone Silikon	PTFE
built-in* integriert*	built-in* integriert*	built-in* integriert*	built-in* integriert*	built-in* integriert*
IHH12N4PO50A-A2T	IHH12S4PO50A-A2S	IHH12S4PO50A-A2T	IHH12N8PO50A-A2S	IHH12N8PO50A-A2T
IHH12N4PC50A-A2T	IHH12S4PC50A-A2S	IHH12S4PC50A-A2T	IHH12N8PC50A-A2S	IHH12N8PC50A-A2T
IHH12N4NO50A-A2T	IHH12S4NO50A-A2S	IHH12S4NO50A-A2T	IHH12N8NO50A-A2S	IHH12N8NO50A-A2T
IHH12N4NC50A-A2T	IHH12S4NC50A-A2S	IHH12S4NC50A-A2T	IHH12N8NC50A-A2S	IHH12N8NC50A-A2T

Minor changes possible
Geringfügige Änderungen möglich

3-Wire High Temperature
3-Leiter Hochtemperatur

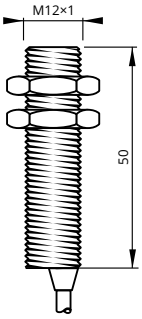
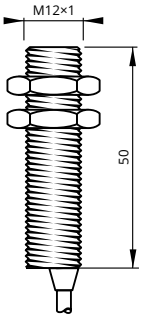
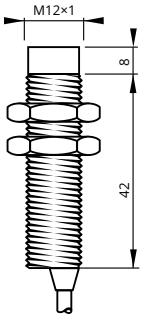
	shielded bündig **M18×1 | 5 mm**	shielded bündig **M18×1 | 5 mm**	unshielded nicht bündig **M18×1 | 8 mm**
			
	standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F
			
Sensing Distance / Schaltabstand	5 mm	5 mm	8 mm
Max Temperature / Höchsttemperatur	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F
Housing Size / Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	150 mA	150 mA	150 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<2V @ 150 mA	<2V @ 150 mA	<2V @ 150 mA
Switching Frequency / Schaltfrequenz	500 Hz	500 Hz	500 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility / Wiederholgenauigkeit	<3 %	<3 %	<3 %
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+120 °C	–25…+120 °C	–25…+120 °C
Protection Class / Schutzklasse	IP 67	IP 67	IP 67
Sensing Face / Sensorfläche	PTFE	PTFE	PTFE
Housing Material / Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection / Anschluss	silicone Silikon	PTFE	silicone Silikon
Switching Indicator / Schaltanzeige	built-in* integriert*	built-in* integriert*	built-in* integriert*
Article Code PNP, NO	IHH18S5PO55A-A2S	IHH18S5PO55A-A2T	IHH18N8PO55A-A2S
Article Code PNP, NC	IHH18S5PC55A-A2S	IHH18S5PC55A-A2T	IHH18N8PC55A-A2S
Article Code NPN, NO	IHH18S5NO55A-A2S	IHH18S5NO55A-A2T	IHH18N8NO55A-A2S
Article Code NPN, NC	IHH18S5NC55A-A2S	IHH18S5NC55A-A2T	IHH18N8NC55A-A2S

* Only for mechanical set-up. LED may die if operated beyond 120 °C (248 °F). The LED functionality is not covered by warranty.
* Nur zur mechanischen Einstellung. Die LED kann bei Temperaturen über 120 °C ausfallen. Keine Garantie auf die LED.

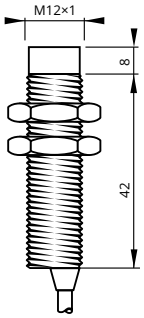
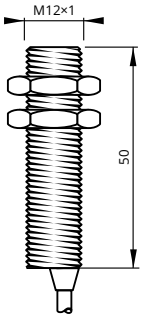
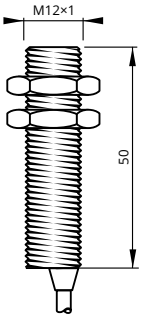
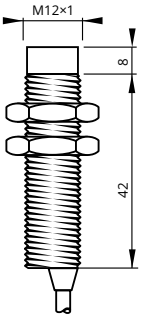
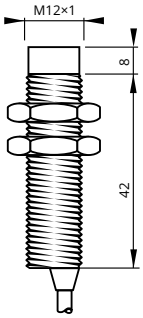
unshielded nicht bündig **M18×1 | 8 mm**	shielded bündig **M30×1.5 | 10 mm**	shielded bündig **M30×1.5 | 10 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**
				
standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F
				
8 mm	10 mm	10 mm	15 mm	15 mm
120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F
M18×1	M30×1.5	M30×1.5	M30×1.5	M30×1.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
150 mA	150 mA	150 mA	150 mA	150 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2V @ 150 mA	<2V @ 150 mA	<2V @ 150 mA	<2V @ 150 mA	<2V @ 150 mA
500 Hz	200 Hz	200 Hz	200 Hz	200 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<3 %	<3 %	<3 %	<3%	<3%
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+120 °C	–25…+120 °C	–25…+120 °C	–25…+120 °C	–25…+120 °C
IP 67	IP 67	IP 67	IP 67	IP 67
PTFE	PTFE	PTFE	PTFE	PTFE
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
PTFE	silicone Silikon	PTFE	silicone Silikon	PTFE
built-in* integriert*	built-in* integriert*	built-in* integriert*	built-in* integriert*	built-in* integriert*
IHH18N8PO55A-A2T	IHH30S10PO55A-A2S	IHH30S10PO55A-A2T	IHH30N15PO55A-A2S	IHH30N15PO55A-A2T
IHH18N8PC55A-A2T	IHH30S10PC55A-A2S	IHH30S10PC55A-A2T	IHH30N15PC55A-A2S	IHH30N15PC55A-A2T
IHH18N8NO55A-A2T	IHH30S10NO55A-A2S	IHH30S10NO55A-A2T	IHH30N15NO55A-A2S	IHH30N15NO55A-A2T
IHH18N8NC55A-A2T	IHH30S10NC55A-A2S	IHH30S10NC55A-A2T	IHH30N15NC55A-A2S	IHH30N15NC55A-A2T

Minor changes possible
Geringfügige Änderungen möglich

3-Wire High Temperature
3-Leiter Hochtemperatur

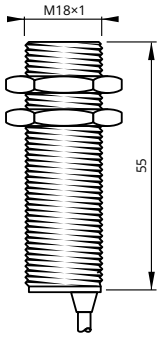
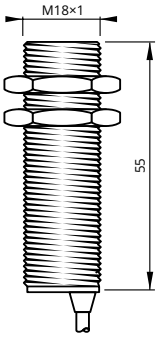
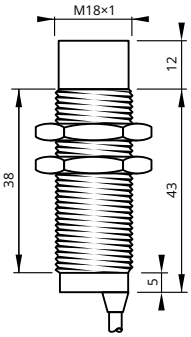
	shielded bündig **M12×1 | 2 mm**	shielded bündig **M12×1 | 2 mm**	unshielded nicht bündig **M12×1 | 4 mm**
			
	standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F
			
Sensing Distance / Schaltabstand	2 mm	2 mm	4 mm
Max Temperature / Höchsttemperatur	150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F
Housing Size / Gehäusegröße	M12×1	M12×1	M12×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	120 mA	120 mA	120 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<2V @ 120 mA	<2V @ 120 mA	<2V @ 120 mA
Switching Frequency / Schaltfrequenz	800 Hz	800 Hz	500 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility / Wiederholgenauigkeit	<3 %	<3 %	<3 %
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+150 °C	–25…+150 °C	–25…+150 °C
Protection Class / Schutzklasse	IP 67	IP 67	IP 67
Sensing Face / Sensorfläche	PTFE	PTFE	PTFE
Housing Material / Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection / Anschluss	silicone Silikon	PTFE	silicone Silikon
Switching Indicator / Schaltanzeige	on request auf Anfrage	on request auf Anfrage	on request auf Anfrage
Article Code PNP, NO	IHH12S2PO50B-N2S	IHH12S2PO50B-N2T	IHH12N4PO50B-N2S
Article Code PNP, NC	IHH12S2PC50B-N2S	IHH12S2PC50B-N2T	IHH12N4PC50B-N2S
Article Code NPN, NO	IHH12S2NO50B-N2S	IHH12S2NO50B-N2T	IHH12N4NO50B-N2S
Article Code NPN, NC	IHH12S2NC50B-N2S	IHH12S2NC50B-N2T	IHH12N4NC50B-N2S

* Only for mechanical set-up. LED may die if operated beyond 120 °C (248 °F). The LED functionality is not covered by warranty.
* Nur zur mechanischen Einstellung. Die LED kann bei Temperaturen über 120 °C ausfallen. Keine Garantie auf die LED.

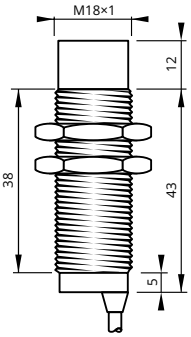
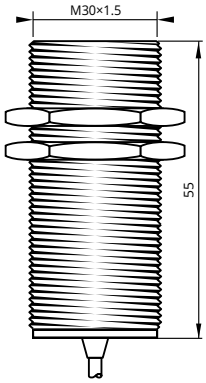
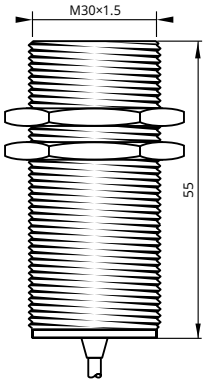
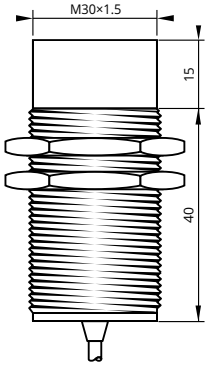
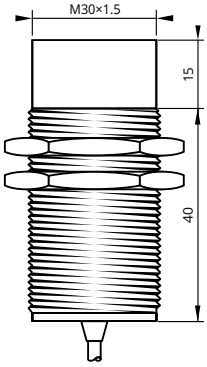
unshielded nicht bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 8 mm**
				
standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F
				
4 mm	4 mm	4 mm	8 mm	8 mm
150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F
M12×1	M12×1	M12×1	M12×1	M12×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
120 mA	120 mA	120 mA	120 mA	120 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2V @ 120 mA	<2V @ 120 mA	<2V @ 120 mA	<2V @ 120 mA	<2V @ 120 mA
500 Hz	500 Hz	500 Hz	300 Hz	300 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<3 %	<3 %	<3 %	<3 %	<3 %
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+150 °C	–25…+150 °C	–25…+150 °C	–25…+150 °C	–25…+150 °C
IP 67	IP 67	IP 67	IP 67	IP 67
PTFE	PTFE	PTFE	PTFE	PTFE
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
PTFE	silicone Silikon	PTFE	silicone Silikon	PTFE
on request auf Anfrage	on request auf Anfrage	on request auf Anfrage	on request auf Anfrage	on request auf Anfrage
IHH12N4PO50B-N2T	IHH12S4PO50B-N2S	IHH12S4PO50B-N2T	IHH12N8PO50B-N2S	IHH12N8PO50B-N2T
IHH12N4PC50B-N2T	IHH12S4PC50B-N2S	IHH12S4PC50B-N2T	IHH12N8PC50B-N2S	IHH12N8PC50B-N2T
IHH12N4NO50B-N2T	IHH12S4NO50B-N2S	IHH12S4NO50B-N2T	IHH12N8NO50B-N2S	IHH12N8NO50B-N2T
IHH12N4NC50B-N2T	IHH12S4NC50B-N2S	IHH12S4NC50B-N2T	IHH12N8NC50B-N2S	IHH12N8NC50B-N2T

Minor changes possible
Geringfügige Änderungen möglich

3-Wire High Temperature
3-Leiter Hochtemperatur

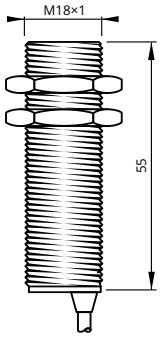
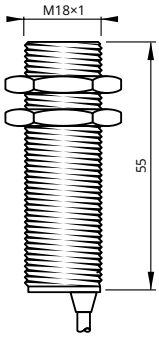
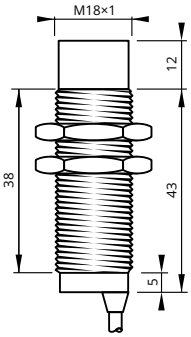
	shielded bündig **M18×1 | 8 mm**	shielded bündig **M18×1 | 5 mm**	unshielded nicht bündig **M18×1 | 8 mm**
			
	standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F
			
Sensing Distance / Schaltabstand	8 mm	5 mm	8 mm
Max Temperature / Höchsttemperatur	150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F
Housing Size / Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	150 mA	150 mA	150 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<2V @ 150 mA	<2V @ 150 mA	<2V @ 150 mA
Switching Frequency / Schaltfrequenz	500 Hz	500 Hz	500 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility / Wiederholgenauigkeit	<3 %	<3 %	<3 %
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+150 °C	–25…+150 °C	–25…+150 °C
Protection Class / Schutzklasse	IP 67	IP 67	IP 67
Sensing Face / Sensorfläche	PTFE	PTFE	PTFE
Housing Material / Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection / Anschluss	silicone Silikon	PTFE	silicone Silikon
Switching Indicator / Schaltanzeige	on request auf Anfrage	on request auf Anfrage	on request auf Anfrage
Article Code PNP, NO	IHH18S5PO55B-N2S	IHH18S5PO55B-N2T	IHH18N8PO55B-N2S
Article Code PNP, NC	IHH18S5PC55B-N2S	IHH18S5PC55B-N2T	IHH18N8PC55B-N2S
Article Code NPN, NO	IHH18S5NO55B-N2S	IHH18S5NO55B-N2T	IHH18N8NO55B-N2S
Article Code NPN, NC	IHH18S5NC55B-N2S	IHH18S5NC55B-N2T	IHH18N8NC55B-N2S

* Only for mechanical set-up. LED may die if operated beyond 120 °C (248 °F). The LED functionality is not covered by warranty.
* Nur zur mechanischen Einstellung. Die LED kann bei Temperaturen über 120 °C ausfallen. Keine Garantie auf die LED.

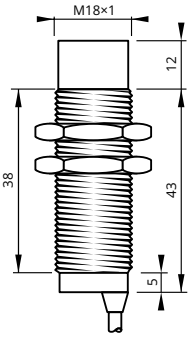
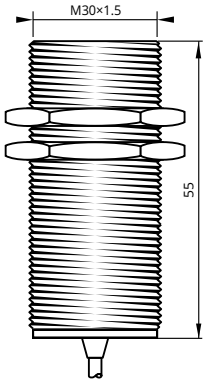
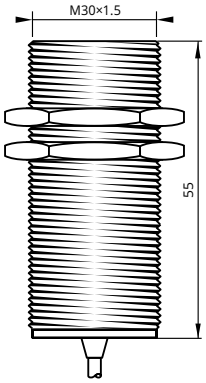
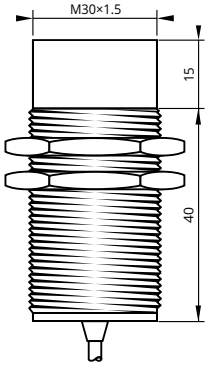
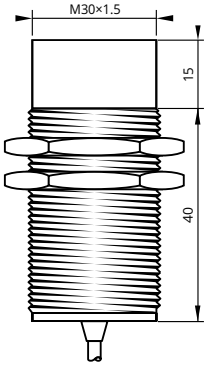
unshielded nicht bündig **M18×1 | 8 mm**	shielded bündig **M30×1.5 | 10 mm**	shielded bündig **M30×1.5 | 10 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**
				
standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F
				
8 mm	10 mm	10 mm	15 mm	15 mm
150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F
M18×1	M30×1.5	M30×1.5	M30×1.5	M30×1.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
150 mA	150 mA	150 mA	150 mA	150 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2V @ 150 mA	<2V @ 150 mA	<2V @ 150 mA	<2V @ 150 mA	<2V @ 150 mA
500 Hz	500 Hz	200 Hz	200 Hz	200 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<3 %	<3 %	<3 %	<3%	<3%
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+150 °C	–25…+150 °C	–25…+150 °C	–25…+150 °C	–25…+150 °C
IP 67	IP 67	IP 67	IP 67	IP 67
PTFE	PTFE	PTFE	PTFE	PTFE
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
PTFE	silicone Silikon	PTFE	silicone Silikon	PTFE
on request auf Anfrage	on request auf Anfrage	on request auf Anfrage	on request auf Anfrage	on request auf Anfrage
IHH18N8PO55B-N2T	IHH30S10PO55B-N2S	IHH30S10PO55B-N2T	IHH30N15PO55B-N2S	IHH30N15PO55B-N2T
IHH18N8PC55B-N2T	IHH30S10PC55B-N2S	IHH30S10PC55B-N2T	IHH30N15PC55B-N2S	IHH30N15PC55B-N2T
IHH18N8NO55B-N2T	IHH30S10NO55B-N2S	IHH30S10NO55B-N2T	IHH30N15NO55B-N2S	IHH30N15NO55B-N2T
IHH18N8NC55B-N2T	IHH30S10NC55B-N2S	IHH30S10NC55B-N2T	IHH30N15NC55B-N2S	IHH30N15NC55B-N2T

Minor changes possible
Geringfügige Änderungen möglich

3-Wire High Temperature
3-Leiter Hochtemperatur

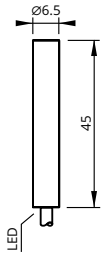
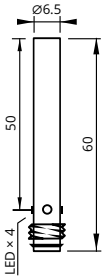
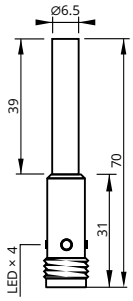
	shielded bündig **M18×1 | 5 mm**	shielded bündig **M18×1 | 5 mm**	unshielded nicht bündig **M18×1 | 8 mm**
			
	standard 180 °C · 356 °F	standard 180 °C · 356 °F	standard 180 °C · 356 °F
			
Sensing Distance / Schaltabstand	5 mm	5 mm	8 mm
Max Temperature / Höchsttemperatur	180 °C · 356 °F	180 °C · 356 °F	180 °C · 356 °F
Housing Size / Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	150 mA	150 mA	150 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<2V @ 150 mA	<2V @ 150 mA	<2V @ 150 mA
Switching Frequency / Schaltfrequenz	500 Hz	500 Hz	500 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility / Wiederholgenauigkeit	<3 %	<3 %	<3 %
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+180 °C	–25…+180 °C	–25…+180 °C
Protection Class / Schutzklasse	IP 67	IP 67	IP 67
Sensing Face / Sensorfläche	PTFE	PTFE	PTFE
Housing Material / Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection / Anschluss	silicone Silikon	PTFE	silicone Silikon
Switching Indicator / Schaltanzeige			
Article Code PNP, NO	IHH18S5PO55C-N2S	IHH18S5PO55C-N2T	IHH18N8PO55C-N2S
Article Code PNP, NC	IHH18S5PC55C-N2S	IHH18S5PC55C-N2T	IHH18N8PC55C-N2S
Article Code NPN, NO	IHH18S5NO55C-N2S	IHH18S5NO55C-N2T	IHH18N8NO55C-N2S
Article Code NPN, NC	IHH18S5NC55C-N2S	IHH18S5NC55C-N2T	IHH18N8NC55C-N2S

* Only for mechanical set-up. LED may die if operated beyond 120 °C (248 °F). The LED functionality is not covered by warranty.
* Nur zur mechanischen Einstellung. Die LED kann bei Temperaturen über 120 °C ausfallen. Keine Garantie auf die LED.

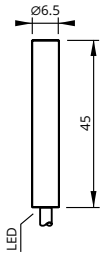
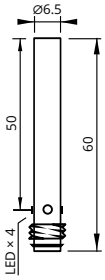
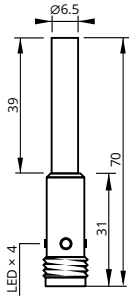
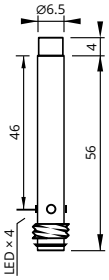
unshielded nicht bündig **M18×1 | 8 mm**	shielded bündig **M30×1.5 | 10 mm**	shielded bündig **M30×1.5 | 10 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**
				
standard 180 °C · 356 °F	standard 180 °C · 356 °F	standard 180 °C · 356 °F	standard 180 °C · 356 °F	standard 180 °C · 356 °F
				
8 mm	10 mm	10 mm	15 mm	15 mm
180 °C · 356 °F	180 °C · 356 °F	180 °C · 356 °F	180 °C · 356 °F	180 °C · 356 °F
M18×1	M30×1.5	M30×1.5	M30×1.5	M30×1.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
150 mA	150 mA	150 mA	150 mA	150 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2V @ 150 mA	<2V @ 150 mA	<2V @ 150 mA	<2V @ 150 mA	<2V @ 150 mA
500 Hz	200 Hz	200 Hz	200 Hz	200 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<3 %	<3%	<3 %	<3%	<3%
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+180 °C	–25…+180 °C	–25…+180 °C	–25…+180 °C	–25…+180 °C
IP 67	IP 67	IP 67	IP 67	IP 67
PTFE	PTFE	PTFE	PTFE	PTFE
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
PTFE	silicone Silikon	PTFE	silicone Silikon	PTFE
IHH18N8PO55C-N2T	IHH30S10PO55C-N2S	IHH30S10PO55C-N2T	IHH30N15PO55C-N2S	IHH30N15PO55C-N2T
IHH18N8PC55C-N2T	IHH30S10PC55C-N2S	IHH30S10PC55C-N2T	IHH30N15PC55C-N2S	IHH30N15PC55C-N2T
IHH18N8NO55C-N2T	IHH30S10NO55C-N2S	IHH30S10NO55C-N2T	IHH30N15NO55C-N2S	IHH30N15NO55C-N2T
IHH18N8NC55C-N2T	IHH30S10NC55C-N2S	IHH30S10NC55C-N2T	IHH30N15NC55C-N2S	IHH30N15NC55C-N2T

Minor changes possible
Geringfügige Änderungen möglich

2-Wire DC
2-Leiter DC

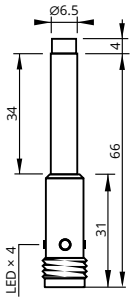
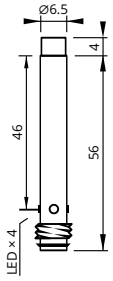
shielded bündig **M8×1 | 1 mm**	shielded bündig **M8×1 | 1 mm**	shielded bündig **M8×1 | 1 mm**
		
standard	standard	standard
		

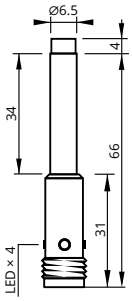
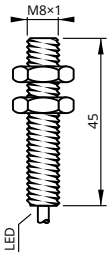
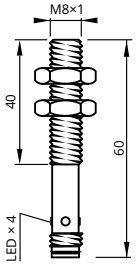
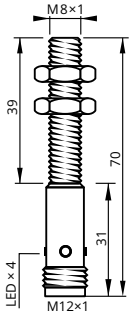
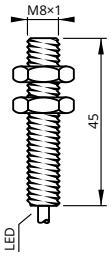
Sensing Distance	Schaltabstand	1 mm		1 mm		1 mm	
Housing Size	Gehäusegröße	M8×1		M8×1		M8×1	
Operating Voltage	Betriebsspannung	10…55 V_{DC}		10…55 V_{DC}		10…55 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert	built-in	integriert	built-in	integriert
Current Consumption	Stromverbrauch	<8 mA		<8 mA		<8 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA		200 mA		200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in	integriert	built-in	integriert	built-in	integriert
Load Resistor	Lastwiderstand	<1.5 V @ 200 mA		<1.5 V @ 200 mA		<1.5 V @ 200 mA	
Output Following Frequency	Ausgangsfolgefrequenz	2000 Hz		2000 Hz		2000 Hz	
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85	
Repeatability	Wiederholgenauigkeit	<1 % (S_n)		<1 % (S_n)		<1 % (S_n)	
Hysteresis	Hysterese	3…15 %		3…15 %		3…15 %	
Operating Temperature	Betriebstemperatur	–25…+75 °C		–25…+75 °C		–25…+75 °C	
Protection Class	Schutzklasse	IP67		IP67		IP67	
Sensing Face	Sensorfläche	POM		POM		POM	
Housing Material	Gehäusewerkstoff	SS303	Edelstahl	SS303	Edelstahl	SS303	Edelstahl
Connection	Anschluss	PVC, ultra-flex		conn. M8	Stecker M8	conn. M12	Stecker M12
Switching Indicator	Schaltanzeige	built-in	integriert	built-in	integriert	built-in	integriert
Article Code PNP, NO	—/—	INSD6S1DO45-A2P		INSD6S1DO60-M8		INSD6S1DO70-M12	
Article Code PNP, NC	—\—	INSD6S1DC45-A2P		INSD6S1DC60-M8		INSD6S1DC70-M12	

shielded bündig **M8×1 | 2 mm**	shielded bündig **M8×1 | 2 mm**	shielded bündig **M8×1 | 2 mm**	unshielded nicht bündig **M8×1 | 2 mm**	unshielded nicht bündig **M8×1 | 2 mm**
				
increased erhöht	increased erhöht	increased erhöht	standard	standard
				
2 mm	2 mm	2 mm	2 mm	2 mm
M8×1	M8×1	M8×1	M8×1	M8×1
10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
PVC, ultra-flex	conn. M8 Stecker M8	conn. M12 Stecker M12	PVC, ultra-flex	conn. M8 Stecker M8
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INSD6S2DO45-A2P	INSD6S2DO60-M8	INSD6S2DO70-M12	INSD6N2DO45-A2P	INSD6N2DO60-M8
INSD6S2DC45-A2P	INSD6S2DC60-M8	INSD6S2DC70-M12	INSD6N2DC45-A2P	INSD6N2DC60-M8

Minor changes possible
Geringfügige Änderungen möglich

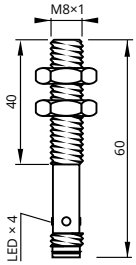
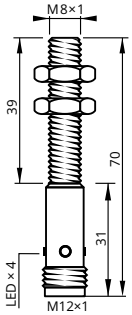
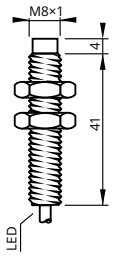
2-Wire DC
2-Leiter DC

	unshielded nicht bündig **M8×1 | 2 mm**	unshielded nicht bündig **M8×1 | 4 mm**	unshielded nicht bündig **M8×1 | 4 mm**
			
	standard	increased erhöht	increased erhöht
			
Sensing Distance / Schaltabstand	2 mm	4 mm	4 mm
Housing Size / Gehäusegröße	M8×1	M8×1	M8×1
Operating Voltage / Betriebsspannung	10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Load Resistor / Lastwiderstand	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Output Following Frequency / Ausgangsfolgefrequenz	2000 Hz	2000 Hz	2000 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection / Anschluss	conn. M12 Stecker M12	PVC, ultra-flex	conn. M8 Stecker M8
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	INSD6N2DO70-M12	INSD6N4DO45-A2P	INSD6N4DO60-M8
Article Code PNP, NC	INSD6N2DC70-M12	INSD6N4DC45-A2P	INSD6N4DC60-M8

unshielded nicht bündig **M8×1 | 4 mm**	shielded bündig **M8×1 | 1 mm**	shielded bündig **M8×1 | 1 mm**	shielded bündig **M8×1 | 1 mm**	shielded bündig **M8×1 | 2 mm**
				
increased erhöht	standard	standard	standard	increased erhöht
				
4 mm	1 mm	1 mm	1 mm	2 mm
M8×1	M8×1	M8×1	M8×1	M8×1
10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
conn. M12 Stecker M12	PVC, ultra-flex	conn. M8 Stecker M8	conn. M12 Stecker M12	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INSD6N4DO70-M12	INS8S1DO45-A2P	INS8S1DO60-M8	INS8S1DO70-M12	INS8S2DO45-A2P
INSD6N4DC70-M12	INS8S1DC45-A2P	INS8S1DC60-M8	INS8S1DC70-M12	INS8S2DC45-A2P

Minor changes possible
Geringfügige Änderungen möglich

2-Wire DC
2-Leiter DC

	shielded bündig **M8×1 | 2 mm**	shielded bündig **M8×1 | 2 mm**	unshielded nicht bündig **M8×1 | 2 mm**
			
	increased erhöht	increased erhöht	standard
			
Sensing Distance	Schaltabstand	2 mm	2 mm	2 mm
Housing Size	Gehäusegröße	M8×1	M8×1	M8×1
Operating Voltage	Betriebsspannung	10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Load Resistor	Lastwiderstand	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Output Following Frequency	Ausgangsfolgefrequenz	2000 Hz	2000 Hz	2000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection	Anschluss	conn. M8 Stecker M8	conn. M12 Stecker M12	PVC, ultra-flex
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	—/—	INS8S2DO60-M8	INS8S2DO70-M12	INS8N2DO45-A2P
Article Code PNP, NC	—\—	INS8S2DC60-M8	INS8S2DC70-M12	INS8N2DC45-A2P

unshielded
nicht bündig
M8×1 | 2 mm

standard

unshielded
nicht bündig
M8×1 | 2 mm

standard

unshielded
nicht bündig
M8×1 | 4 mm

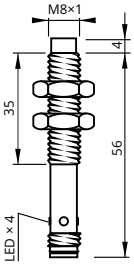
increased
erhöht

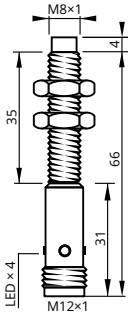
unshielded
nicht bündig
M8×1 | 4 mm

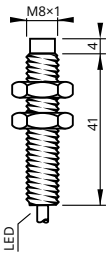
increased
erhöht

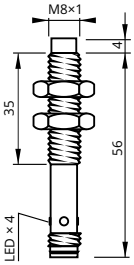
unshielded
nicht bündig
M8×1 | 4 mm

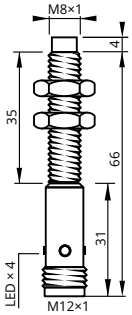
increased
erhöht







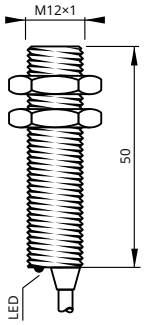
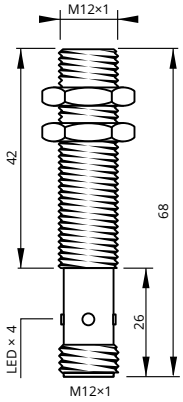
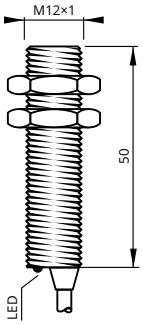




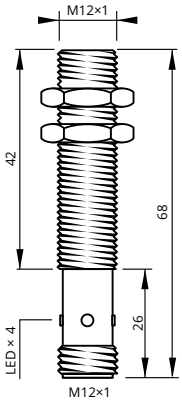
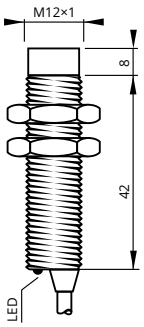
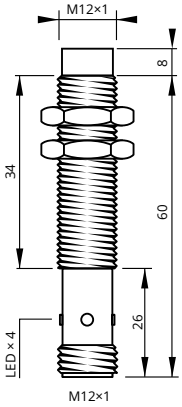
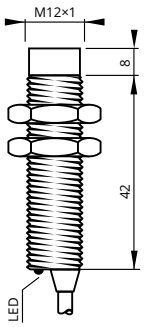
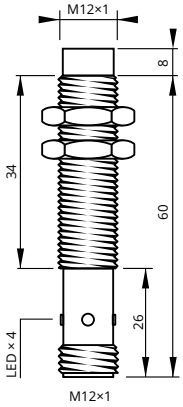
2 mm		2 mm		4 mm		4 mm		4 mm	
M8×1		M8×1		M8×1		M8×1		M8×1	
10…55 V_{DC}		10…55 V_{DC}		10…55 V_{DC}		10…55 V_{DC}		10…55 V_{DC}	
built-in	integriert	built-in	integriert	built-in	integriert	built-in	integriert	built-in	integriert
<8 mA		<8 mA		<8 mA		<8 mA		<8 mA	
200 mA		200 mA		200 mA		200 mA		200 mA	
built-in	integriert	built-in	integriert	built-in	integriert	built-in	integriert	built-in	integriert
<1.5 V @ 200 mA		<1.5 V @ 200 mA		<1.5 V @ 200 mA		<1.5 V @ 200 mA		<1.5 V @ 200 mA	
2000 Hz		2000 Hz		2000 Hz		2000 Hz		2000 Hz	
Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85	
<1 % (S_n)		<1 % (S_n)		<1 % (S_n)		<1 % (S_n)		<1 % (S_n)	
3…15 %		3…15 %		3…15 %		3…15 %		3…15 %	
–25…+75 °C		–25…+75 °C		–25…+75 °C		–25…+75 °C		–25…+75 °C	
IP67		IP67		IP67		IP67		IP67	
POM		POM		POM		POM		POM	
SS303	Edelstahl	SS303	Edelstahl	SS303	Edelstahl	SS303	Edelstahl	SS303	Edelstahl
conn. M8	Stecker M8	conn. M12	Stecker M12	PVC, ultra-flex		conn. M8	Stecker M8	conn. M12	Stecker M12
built-in	integriert	built-in	integriert	built-in	integriert	built-in	integriert	built-in	integriert
INS8N2DO60-M8		INS8N2DO70-M12		INS8N4DO45-A2P		INS8N4DO60-M8		INS8N4DO70-M12	
INS8N2DC60-M8		INS8N2DC70-M12		INS8N4DC45-A2P		INS8N4DC60-M8		INS8N4DC70-M12	

Minor changes possible
Geringfügige Änderungen möglich

2-Wire DC
2-Leiter DC

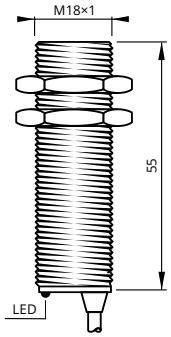
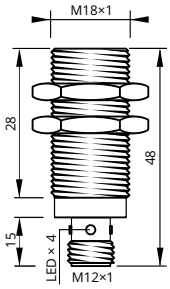
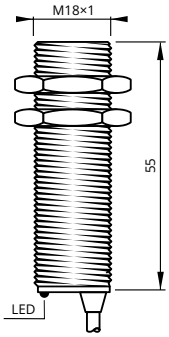
shielded bündig **M12×1 | 2 mm**	shielded bündig **M12×1 | 2 mm**	shielded bündig **M12×1 | 4 mm**
		
standard	standard	increased erhöht
		

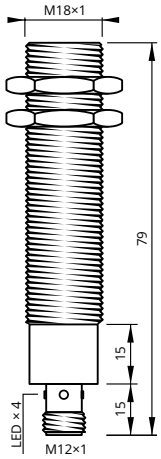
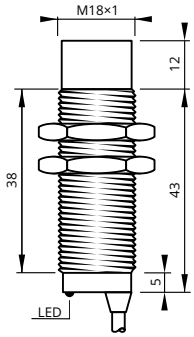
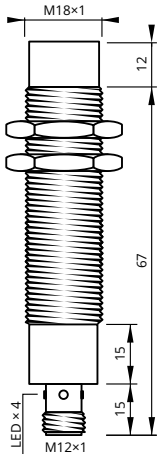
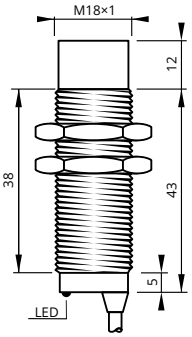
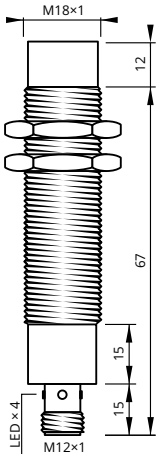
Sensing Distance	Schaltabstand	2 mm		2 mm		4 mm	
Housing Size	Gehäusegröße	M12×1		M12×1		M12×1	
Operating Voltage	Betriebsspannung	10…55 V_{DC}		10…55 V_{DC}		10…55 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert	built-in	integriert	built-in	integriert
Current Consumption	Stromverbrauch	<8 mA		<8 mA		<8 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA		200 mA		200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in	integriert	built-in	integriert	built-in	integriert
Load Resistor	Lastwiderstand	<1.5 V @ 200 mA		<1.5 V @ 200 mA		<1.5 V @ 200 mA	
Output Following Frequency	Ausgangsfolgefrequenz	2000 Hz		2000 Hz		1000 Hz	
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85	
Repeatibility	Wiederholgenauigkeit	<1 % (S_n)		<1 % (S_n)		<1 % (S_n)	
Hysteresis	Hysterese	3…15 %		3…15 %		3…15 %	
Operating Temperature	Betriebstemperatur	–25…+75 °C		–25…+75 °C		–25…+75 °C	
Protection Class	Schutzklasse	IP67		IP67		IP67	
Sensing Face	Sensorfläche	POM		POM		POM	
Housing Material	Gehäusewerkstoff	brass	Messing	brass	Messing	brass	Messing
Connection	Anschluss	PVC, ultra-flex		conn. M12	Stecker M12	PVC, ultra-flex	
Switching Indicator	Schaltanzeige	built-in	integriert	built-in	integriert	built-in	integriert
Article Code PNP, NO	⎍	INS12S2DO50-A2P		INS12S2DO68-M12		INS12S4DO50-A2P	
Article Code PNP, NC	⎍	INS12S2DC50-A2P		INS12S2DC68-M12		INS12S4DC50-A2P	

shielded bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 8 mm**
				
increased erhöht	standard	standard	increased erhöht	increased erhöht
				
4 mm	4 mm	4 mm	8 mm	8 mm
M12×1	M12×1	M12×1	M12×1	M12×1
10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
1000 Hz	1000 Hz	1000 Hz	1000 Hz	500 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS12S4DO68-M12	INS12N4DO50-A2P	INS12N4DO68-M12	INS12N8DO50-A2P	INS12N8DO68-M12
INS12S4DC68-M12	INS12N4DC50-A2P	INS12N4DC68-M12	INS12N8DC50-A2P	INS12N8DC68-M12

Minor changes possible
Geringfügige Änderungen möglich

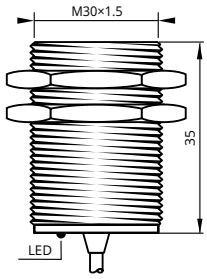
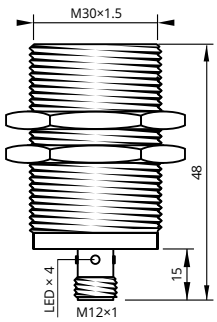
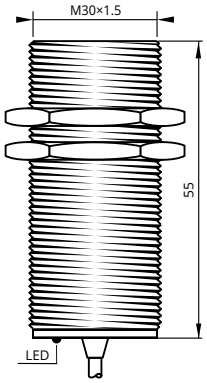
2-Wire DC
2-Leiter DC

	shielded bündig **M18×1 | 5 mm**	shielded bündig **M18×1 | 5 mm**	shielded bündig **M18×1 | 8 mm**
			
	standard	standard	increased erhöht
			
Sensing Distance / Schaltabstand	5 mm	5 mm	8 mm
Housing Size / Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage / Betriebsspannung	10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Load Resistor / Lastwiderstand	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Output Following Frequency / Ausgangsfolgefrequenz	1000 Hz	1000 Hz	500 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection / Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	INS18S5DO55-A2P	INS18S5DO79-M12	INS18S8DO55-A2P
Article Code PNP, NC	INS18S5DC55-A2P	INS18S5DC79-M12	INS18S8DC55-A2P

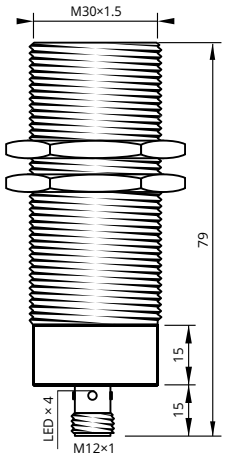
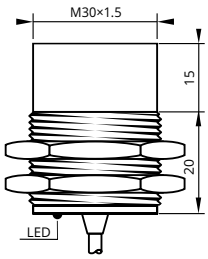
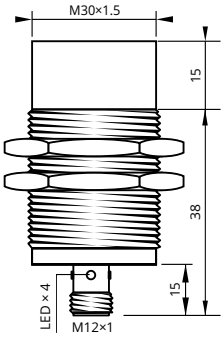
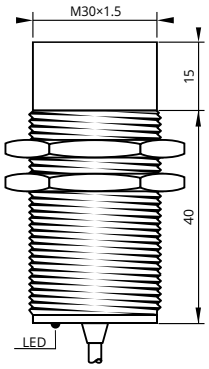
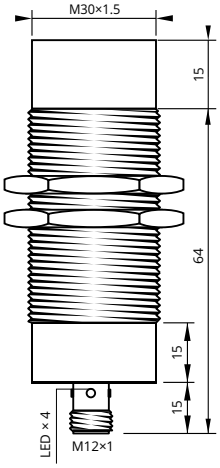
shielded bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 16 mm**	unshielded nicht bündig **M18×1 | 16 mm**
				
increased erhöht	standard	standard	increased erhöht	increased erhöht
				
8 mm	8 mm	8 mm	16 mm	16 mm
M18×1	M18×1	M18×1	M18×1	M18×1
10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
500 Hz	500 Hz	500 Hz	150 Hz	150 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS18S8DO79-M12	INS18N8DO55-A2P	INS18N8DO79-M12	INS18N16DO55-A2P	INS18N16DO79-M12
INS18S8DC79-M12	INS18N8DC55-A2P	INS18N8DC79-M12	INS18N16DC55-A2P	INS18N16DC79-M12

Minor changes possible
Geringfügige Änderungen möglich

2-Wire DC
2-Leiter DC

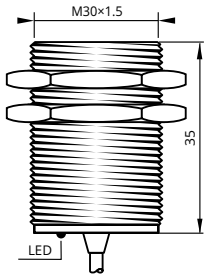
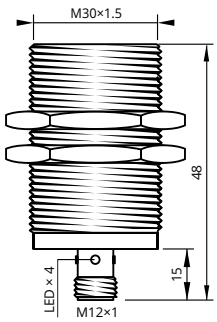
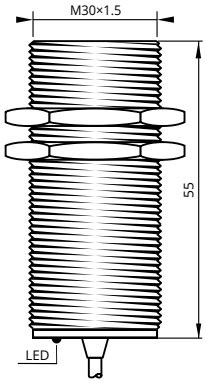
shielded bündig **M30×1.5 | 10 mm**	shielded bündig **M30×1.5 | 10 mm**	shielded bündig **M30×1.5 | 10 mm**
		
standard	standard	standard
		

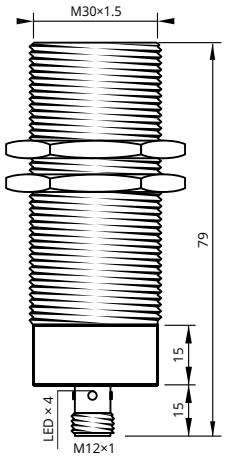
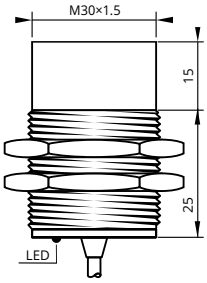
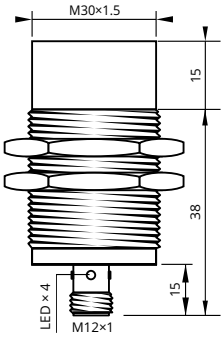
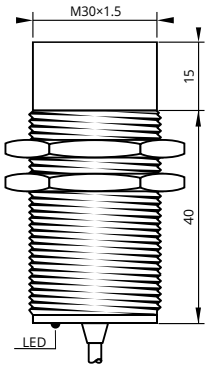
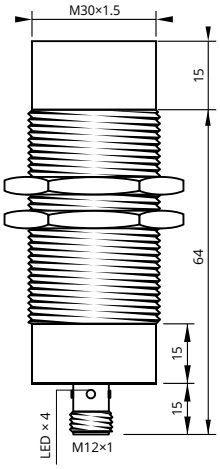
Sensing Distance	Schaltabstand	10 mm	10 mm	10 mm
Housing Size	Gehäusegröße	M30×1.5	M30×1.5	M30×1.5
Operating Voltage	Betriebsspannung	10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Load Resistor	Lastwiderstand	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Output Following Frequency	Ausgangsfolgefrequenz	300 Hz	300 Hz	300 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection	Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	—/—	INS30S10DO35-A2P	INS30S10DO48-M12	INS30S10DO55-A2P
Article Code PNP, NC	—\—	INS30S10DC35-A2P	INS30S10DC48-M12	INS30S10DC55-A2P

shielded bündig **M30×1.5 | 10 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**
				
standard	standard	standard	standard	standard
				
10 mm	15 mm	15 mm	15 mm	15 mm
M30×1.5	M30×1.5	M30×1.5	M30×1.5	M30×1.5
10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
300 Hz	150 Hz	150 Hz	150 Hz	150 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS30S10DO79-M12	INS30N15DO35-A2P	INS30N15DO53-M12	INS30N15DO55-A2P	INS30N15DO79-M12
INS30S10DC79-M12	INS30N15DC35-A2P	INS30N15DC53-M12	INS30N15DC55-A2P	INS30N15DC79-M12

Minor changes possible
Geringfügige Änderungen möglich

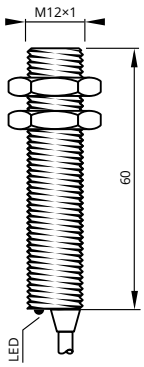
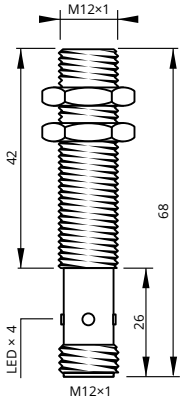
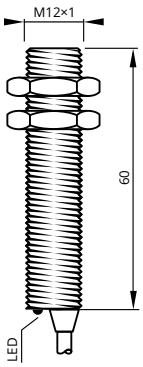
2-Wire DC
2-Leiter DC

	shielded bündig **M30×1.5 | 16 mm**	shielded bündig **M30×1.5 | 16 mm**	shielded bündig **M30×1.5 | 16 mm**
			
	increased erhöht	increased erhöht	increased erhöht
			
Sensing Distance / Schaltabstand	16 mm	16 mm	16 mm
Housing Size / Gehäusegröße	M30×1.5	M30×1.5	M30×1.5
Operating Voltage / Betriebsspannung	10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Load Resistor / Lastwiderstand	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Output Following Frequency / Ausgangsfolgefrequenz	150 Hz	150 Hz	150 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection / Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	INS30S16DO35-A2P	INS30S16DO48-M12	INS30S16DO55-A2P
Article Code PNP, NC	INS30S16DC35-A2P	INS30S16DC48-M12	INS30S16DC55-A2P

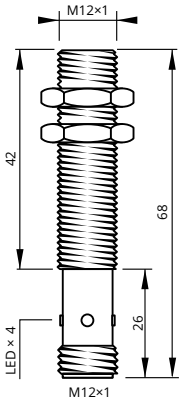
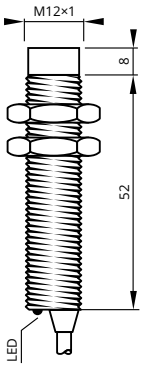
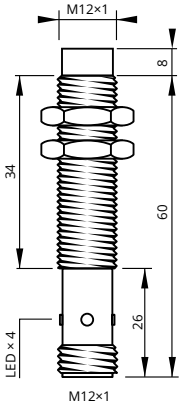
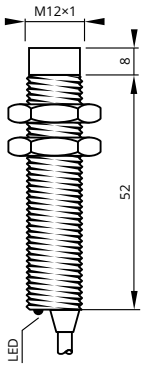
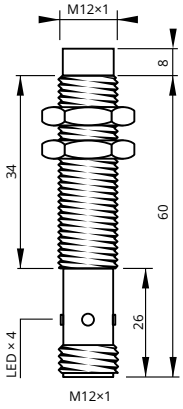
shielded bündig **M30×1.5 | 16 mm**	unshielded nicht bündig **M30×1.5 | 25 mm**	unshielded nicht bündig **M30×1.5 | 25 mm**	unshielded nicht bündig **M30×1.5 | 25 mm**	unshielded nicht bündig **M30×1.5 | 25 mm**
				
increased erhöht	standard	standard	increased erhöht	increased erhöht
				
16 mm	25 mm	25 mm	25 mm	25 mm
M30×1.5	M30×1.5	M30×1.5	M30×1.5	M30×1.5
10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}	10…55 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
150 Hz	150 Hz	150 Hz	100 Hz	100 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS30S16DO79-M12	INS30N25DO40-A2P	INS30N25DO53-M12	INS30N25DO55-A2P	INS30N25DO79-M12
INS30S16DC79-M12	INS30N25DC40-A2P	INS30N25DC53-M12	INS30N25DC55-A2P	INS30N25DC79-M12

Minor changes possible
Geringfügige Änderungen möglich

2-Wire AC
2-Leiter AC

	shielded bündig **M12×1 | 2 mm**	shielded bündig **M12×1 | 2 mm**	shielded bündig **M12×1 | 4 mm**
			
	standard	standard	increased erhöht
			

Sensing Distance	Schaltabstand	2 mm	2 mm	4 mm
Housing Size	Gehäusegröße	M12×1	M12×1	M12×1
Operating Voltage	Betriebsspannung	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}
Reverse Polarity Protection	Verpolungsschutz	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.
Current Consumption	Stromverbrauch	<3 mA	<3 mA	<3 mA
Current Load Capability	Ausgangsbelastbarkeit	400 mA	400 mA	400 mA
Voltage Drop	Spannungsabfall	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA
Switching Frequency	Schaltfrequenz	25 Hz	25 Hz	25 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection	Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code NO	—/—	INS12S2AO60-A2P	INS12S2AO68-M12	INS12S4AO60-A2P
Article Code NC	—/—	INS12S2AC60-A2P	INS12S2AC68-M12	INS12S4AC60-A2P

shielded bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 8 mm**
				
increased erhöht	standard	standard	increased erhöht	increased erhöht
				
4 mm	4 mm	4 mm	8 mm	8 mm
M12×1	M12×1	M12×1	M12×1	M12×1
20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}
not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.
<3 mA	<3 mA	<3 mA	<3 mA	<3 mA
400 mA	400 mA	400 mA	400 mA	400 mA
<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA
25 Hz	25 Hz	25 Hz	25 Hz	25 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS12S4AO68-M12	INS12N4AO60-A2P	INS12N4AO68-M12	INS12N8AO60-A2P	INS12N8AO68-M12
INS12S4AC68-M12	INS12N4AC60-A2P	INS12N4AC68-M12	INS12N8AC60-A2P	INS12N8AC68-M12

Minor changes possible
Geringfügige Änderungen möglich

2-Wire AC
2-Leiter AC

shielded
bündig
M12×1 | 5 mm

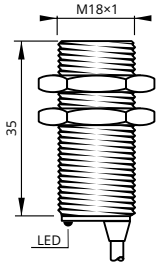
standard

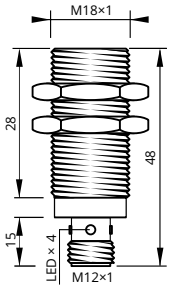
shielded
bündig
M12×1 | 5 mm

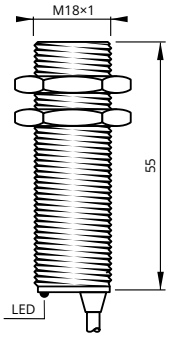
standard

shielded
bündig
M18×1 | 5 mm

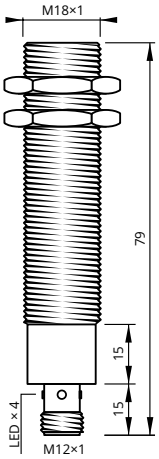
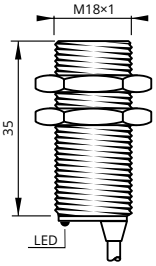
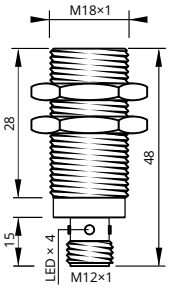
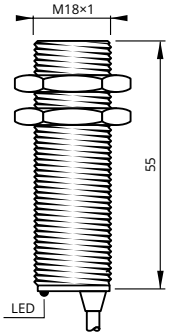
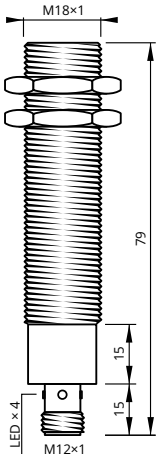
standard





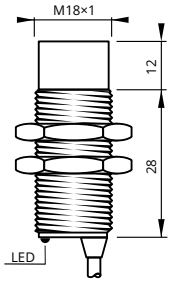
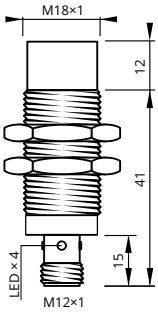
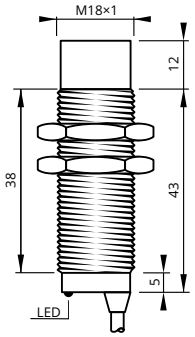


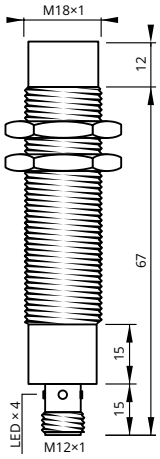
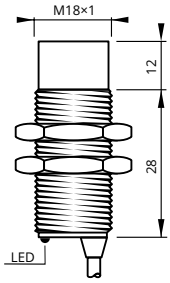
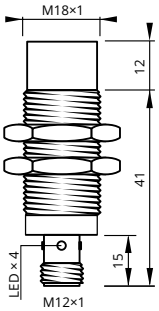
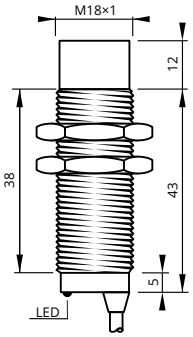
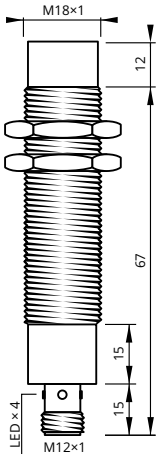
Sensing Distance	Schaltabstand	5 mm	5 mm	5 mm
Housing Size	Gehäusegröße	M12×1	M12×1	M18×1
Operating Voltage	Betriebsspannung	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}
Reverse Polarity Protection	Verpolungsschutz	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.
Current Consumption	Stromverbrauch	<3 mA	<3 mA	<3 mA
Current Load Capability	Ausgangsbelastbarkeit	400 mA	400 mA	400 mA
Voltage Drop	Spannungsabfall	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA
Switching Frequency	Schaltfrequenz	25 Hz	25 Hz	25 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection	Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code NO	—/—	INS18S5AO35-A2P	INS18S5AO48-M12	INS18S5AO55-A2P
Article Code NC	—/—	INS18S5AC35-A2P	INS18S5AC48-M12	INS18S5AC55-A2P

shielded bündig **M18×1 | 5 mm**	shielded bündig **M12×1 | 8 mm**	shielded bündig **M12×1 | 8 mm**	shielded bündig **M18×1 | 8 mm**	shielded bündig **M18×1 | 8 mm**
				
standard	increased	increased	increased erhöht	increased erhöht
				
5 mm	8 mm	8 mm	8 mm	8 mm
M18×1	M12×1	M12×1	M18×1	M18×1
20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}
not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.
<3 mA	<3 mA	<3 mA	<3 mA	<3 mA
400 mA	400 mA	400 mA	400 mA	400 mA
<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA
25 Hz	25 Hz	25 Hz	25 Hz	25 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS18S5AO79-M12	INS18S8AO35-A2P	INS18S8AO48-M12	INS18S8AO55-A2P	INS18S8AO79-M12
INS18S5AC79-M12	INS18S8AC35-A2P	INS18S8AC48-M12	INS18S8AC55-A2P	INS18S8AC79-M12

Minor changes possible
Geringfügige Änderungen möglich

2-Wire AC
2-Leiter AC

	unshielded nicht bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 8 mm**
			
	standard	standard	standard
			
Sensing Distance / Schaltabstand	8 mm	8 mm	8 mm
Housing Size / Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage / Betriebsspannung	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}
Reverse Polarity Protection / Verpolungsschutz	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.
Current Consumption / Stromverbrauch	<3 mA	<3 mA	<3 mA
Current Load Capability / Ausgangsbelastbarkeit	400 mA	400 mA	400 mA
Voltage Drop / Spannungsabfall	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA
Switching Frequency / Schaltfrequenz	25 Hz	25 Hz	25 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection / Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code NO	INS18N8AO40-A2P	INS18N8AO53-M12	INS18N8AO55-A2P
Article Code NC	INS18N8AC40-A2P	INS18N8AC53-M12	INS18N8AC55-A2P

unshielded nicht bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 16 mm**	unshielded nicht bündig **M18×1 | 16 mm**	unshielded nicht bündig **M18×1 | 16 mm**	unshielded nicht bündig **M18×1 | 16 mm**
				
standard	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				
8 mm	16 mm	16 mm	16 mm	16 mm
M18×1	M18×1	M18×1	M18×1	M18×1
20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}
not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.
<3 mA	<3 mA	<3 mA	<3 mA	<3 mA
400 mA	400 mA	400 mA	400 mA	400 mA
<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA
25 Hz	25 Hz	25 Hz	25 Hz	25 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
conn. M12 Stecker M12	conn. M12 Stecker M12	conn. M12 Stecker M12	conn. M12 Stecker M12	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS18N8AO79-M12	INS18N16AO40-A2P	INS18N16AO53-M12	INS18N16AO55-A2P	INS18N16AO79-M12
INS18N8AC79-M12	INS18N16AC40-A2P	INS18N16AC53-M12	INS18N16AC55-A2P	INS18N16AC79-M12

Minor changes possible
Geringfügige Änderungen möglich

2-Wire AC
2-Leiter AC

shielded
bündig
M30×1.5 | 10 mm

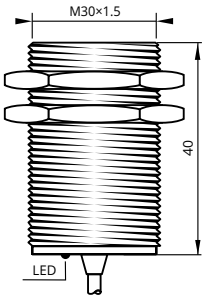
standard

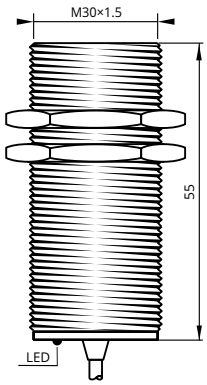
shielded
bündig
M30×1.5 | 10 mm

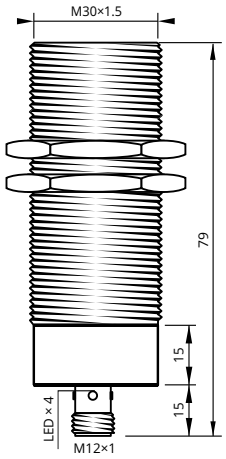
standard

shielded
bündig
M30×1.5 | 10 mm

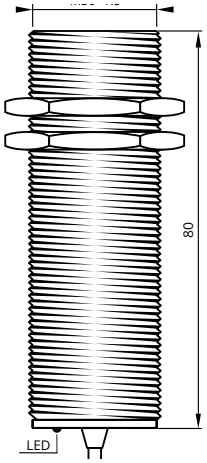
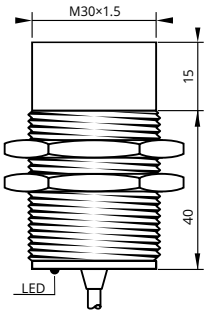
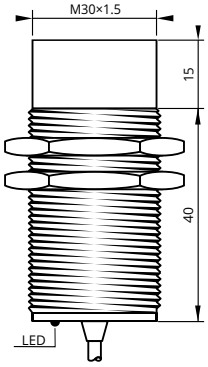
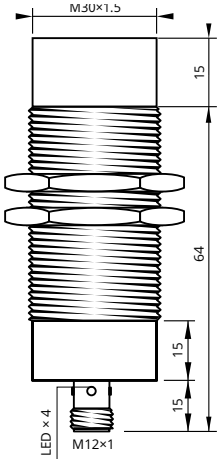
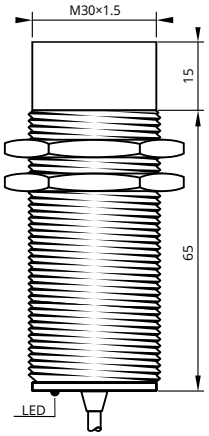
standard





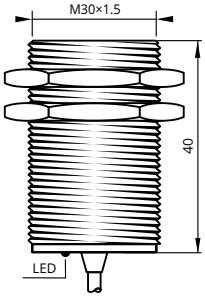
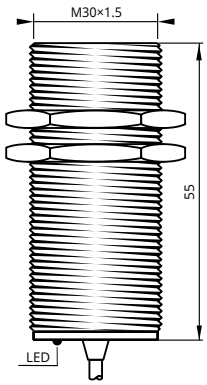
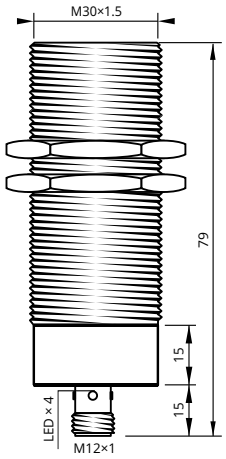


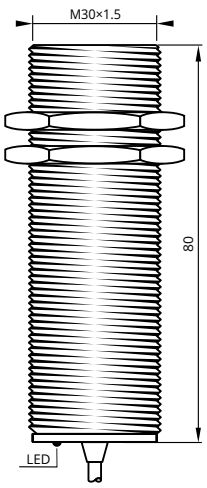
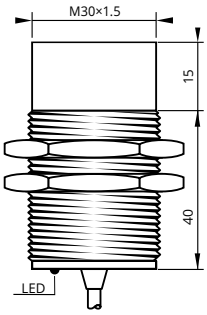
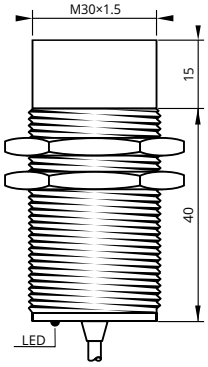
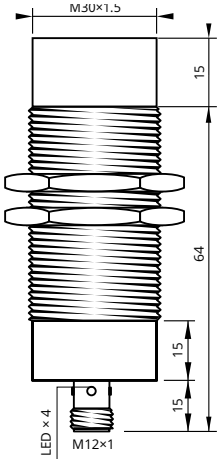
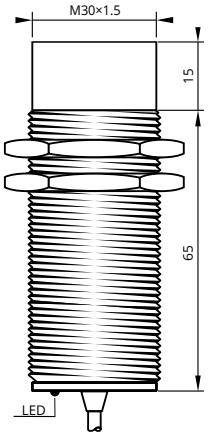
Sensing Distance	Schaltabstand	10 mm	10 mm	10 mm
Housing Size	Gehäusegröße	M30×1.5	M30×1.5	M30×1.5
Operating Voltage	Betriebsspannung	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}
Reverse Polarity Protection	Verpolungsschutz	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.
Current Consumption	Stromverbrauch	<3 mA	<3 mA	<3 mA
Current Load Capability	Ausgangsbelastbarkeit	400 mA	400 mA	400 mA
Voltage Drop	Spannungsabfall	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA
Switching Frequency	Schaltfrequenz	25 Hz	25 Hz	25 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection	Anschluss	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code NO	—/—	INS30S10AO40-A2P	INS30S10AO55-A2P	INS30S10AO79-M12
Article Code NC	—/—	INS30S10AC40-A2P	INS30S10AC55-A2P	INS30S10AC79-M12

shielded bündig **M30×1.5 | 10 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**
				
standard	standard	standard	standard	standard
				
10 mm	15 mm	15 mm	15 mm	15 mm
M30×1.5	M30×1.5	M30×1.5	M30×1.5	M30×1.5
20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}
not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.
<3 mA	<3 mA	<3 mA	<3 mA	<3 mA
400 mA	400 mA	400 mA	400 mA	400 mA
<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA
25 Hz	25 Hz	25 Hz	25 Hz	25 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
PVC, ultra-flex	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS30S10AO80-A2P	INS30N15AO45-A2P	INS30N15AO55-A2P	INS30N15AO79-M12	INS30N15AO80-A2P
INS30S10AC80-A2P	INS30N15AC45-A2P	INS30N15AC55-A2P	INS30N15AC79-M12	INS30N15AC80-A2P

Minor changes possible
Geringfügige Änderungen möglich

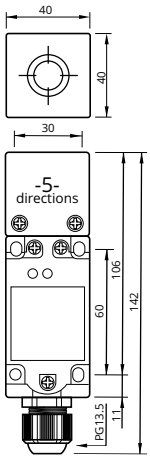
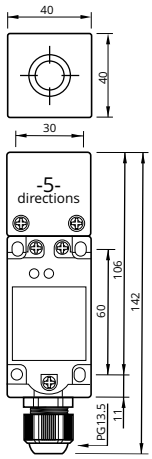
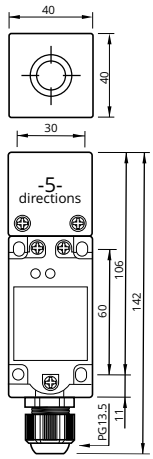
2-Wire AC
2-Leiter AC

	shielded bündig **M30×1.5 | 16 mm**	shielded bündig **M30×1.5 | 16 mm**	shielded bündig **M30×1.5 | 16 mm**
			
	increased erhöht	increased erhöht	increased erhöht
			
Sensing Distance / Schaltabstand	16 mm	16 mm	16 mm
Housing Size / Gehäusegröße	M30×1.5	M30×1.5	M30×1.5
Operating Voltage / Betriebsspannung	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}
Reverse Polarity Protection / Verpolungsschutz	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.
Current Consumption / Stromverbrauch	<3 mA	<3 mA	<3 mA
Current Load Capability / Ausgangsbelastbarkeit	400 mA	400 mA	400 mA
Voltage Drop / Spannungsabfall	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA
Switching Frequency / Schaltfrequenz	25 Hz	25 Hz	25 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection / Anschluss	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code NO	INS30S16AO40-A2P	INS30S16AO55-A2P	INS30S16AO79-M12
Article Code NC	INS30S16AC40-A2P	INS30S16AC55-A2P	INS30S16AC79-M12

shielded bündig **M30×1.5 | 16 mm**	unshielded nicht bündig **M30×1.5 | 25 mm**	unshielded nicht bündig **M30×1.5 | 25 mm**	unshielded nicht bündig **M30×1.5 | 25 mm**	unshielded nicht bündig **M30×1.5 | 25 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				
16 mm	25 mm	25 mm	25 mm	25 mm
M30×1.5	M30×1.5	M30×1.5	M30×1.5	M30×1.5
20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}
not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.
<3 mA	<3 mA	<3 mA	<3 mA	<3 mA
400 mA	400 mA	400 mA	400 mA	400 mA
<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA
25 Hz	25 Hz	25 Hz	25 Hz	25 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
PVC, ultra-flex	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS30S16AO80-A2P	INS30N25AO45-A2P	INS30N25AO55-A2P	INS30N25AO79-M12	INS30N25AO80-A2P
INS30S16AC80-A2P	INS30N25AC45-A2P	INS30N25AC55-A2P	INS30N25AC79-M12	INS30N25AC80-A2P

Minor changes possible
Geringfügige Änderungen möglich

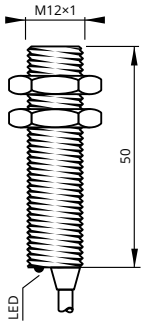
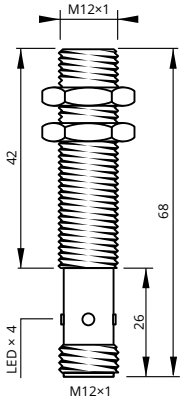
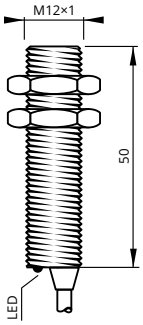
2-Wire AC
2-Leiter AC

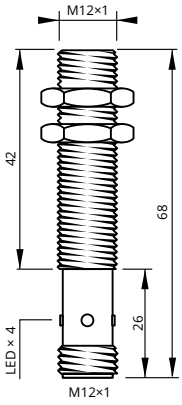
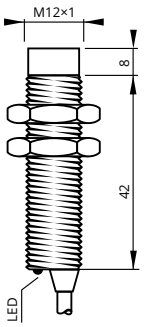
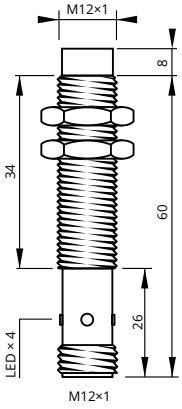
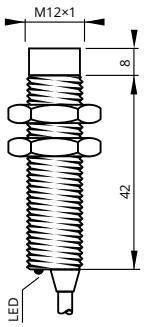
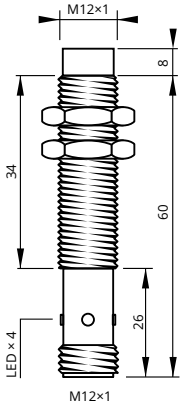
	shielded bündig **40×40 mm | 15 mm**	shielded bündig **40×40 mm | 20 mm**	unshielded nicht bündig **40×40 mm | 30 mm**
			
	standard	increased erhöht	increased erhöht
			

Sensing Distance	Schaltabstand	15 mm	20 mm	30 mm
Housing Size	Gehäusegröße	40×40 mm	40×40 mm	40×40 mm
Operating Voltage	Betriebsspannung	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}
Reverse Polarity Protection	Verpolungsschutz	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.
Current Consumption	Stromverbrauch	<3 mA	<3 mA	<3 mA
Current Load Capability	Ausgangsbelastbarkeit	400 mA	400 mA	400 mA
Voltage Drop	Spannungsabfall	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA
Switching Frequency	Schaltfrequenz	25 Hz	25 Hz	25 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	PBT	PBT	PBT
Housing Material	Gehäusewerkstoff	PBT	PBT	PBT
Connection	Anschluss	PG13.5, terminal	PG13.5, terminal	PG13.5, terminal
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code NO	—/—	INS40S15AOL-PG13	INS40S20AOL-PG13	INS40N30AOL-PG13
Article Code NC	—✗—	INS40S15ACL-PG13	INS40S20ACL-PG13	INS40N30ACL-PG13
Article Code NO+NC	—/— + —✗—	INS40S15ACOL-PG13	INS40S20ACOL-PG13	INS40N30ACOL-PG13

Minor changes possible
Geringfügige Änderungen möglich

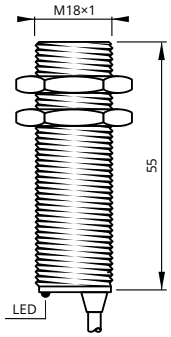
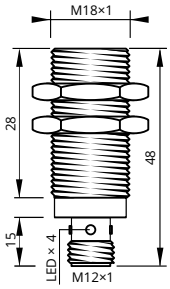
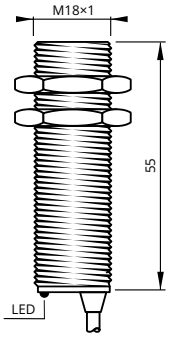
2-Wire AC|DC
2-Leiter AC|DC

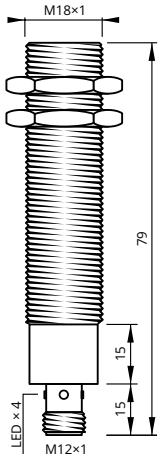
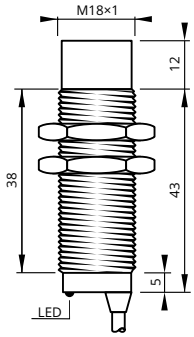
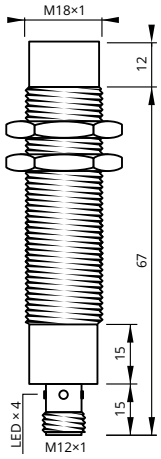
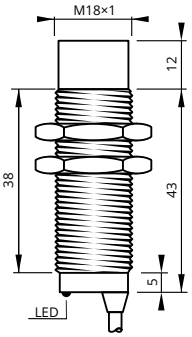
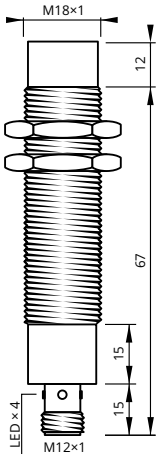
	shielded bündig **M12×1 | 2 mm**	shielded bündig **M12×1 | 2 mm**	shielded bündig **M12×1 | 4 mm**
			
	standard	standard	increased erhöht
			
Sensing Distance / Schaltabstand	2 mm	2 mm	4 mm
Housing Size / Gehäusegröße	M12×1	M12×1	M12×1
Operating Voltage / Betriebsspannung	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Load Resistor / Lastwiderstand	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Output Following Frequency / Ausgangsfolgefrequenz	2000 Hz	2000 Hz	1000 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection / Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	INS12S2UO50-A2P	INS12S2UO68-M12	INS12S4UO50-A2P
Article Code PNP, NC	INS12S2UC50-A2P	INS12S2UC68-M12	INS12S4UC50-A2P

shielded bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 8 mm**
				
increased erhöht	standard	standard	increased erhöht	increased erhöht
				
4 mm	4 mm	4 mm	8 mm	8 mm
M12×1	M12×1	M12×1	M12×1	M12×1
24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
1000 Hz	1000 Hz	1000 Hz	1000 Hz	500 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS12S4UO68-M12	INS12N4UO50-A2P	INS12N4UO68-M12	INS12N8UO50-A2P	INS12N8UO68-M12
INS12S4UC68-M12	INS12N4UC50-A2P	INS12N4UC68-M12	INS12N8UC50-A2P	INS12N8UC68-M12

Minor changes possible
Geringfügige Änderungen möglich

2-Wire AC|DC
2-Leiter AC|DC

	shielded bündig **M18×1 | 5 mm**	shielded bündig **M18×1 | 5 mm**	shielded bündig **M18×1 | 8 mm**
			
	standard	standard	increased erhöht
			
Sensing Distance / Schaltabstand	5 mm	5 mm	8 mm
Housing Size / Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage / Betriebsspannung	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Load Resistor / Lastwiderstand	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Output Following Frequency / Ausgangsfolgefrequenz	1000 Hz	1000 Hz	500 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection / Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	INS18S5UO55-A2P	INS18S5UO79-M12	INS18S8UO55-A2P
Article Code PNP, NC	INS18S5UC55-A2P	INS18S5UC79-M12	INS18S8UC55-A2P

shielded bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 16 mm**	unshielded nicht bündig **M18×1 | 16 mm**
				
increased erhöht	standard	standard	increased erhöht	increased erhöht
				
8 mm	8 mm	8 mm	16 mm	16 mm
M18×1	M18×1	M18×1	M18×1	M18×1
24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
500 Hz	500 Hz	500 Hz	150 Hz	150 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS18S8UO79-M12	INS18N8UO55-A2P	INS18N8UO79-M12	INS18N16UO55-A2P	INS18N16UO79-M12
INS18S8UC79-M12	INS18N8UC55-A2P	INS18N8UC79-M12	INS18N16UC55-A2P	INS18N16UC79-M12

Minor changes possible
Geringfügige Änderungen möglich

2-Wire AC|DC
2-Leiter AC|DC

shielded
bündig
M30×1.5 | 10 mm

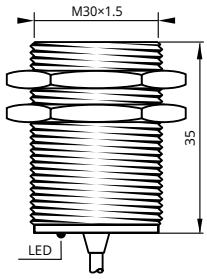
standard

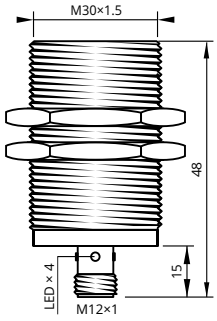
shielded
bündig
M30×1.5 | 10 mm

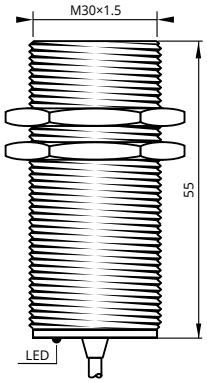
standard

shielded
bündig
M30×1.5 | 10 mm

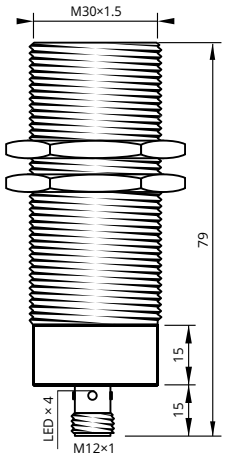
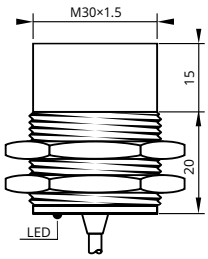
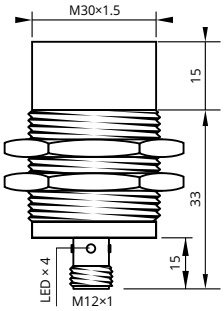
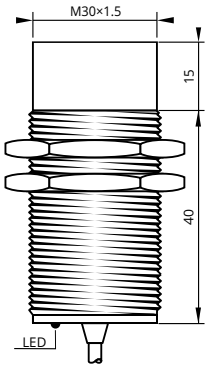
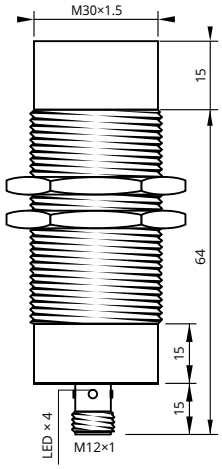
standard





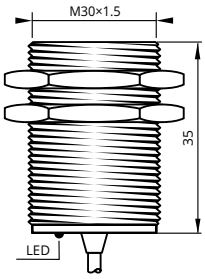
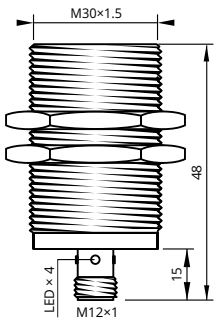
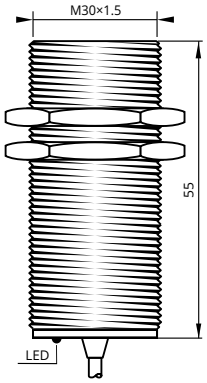


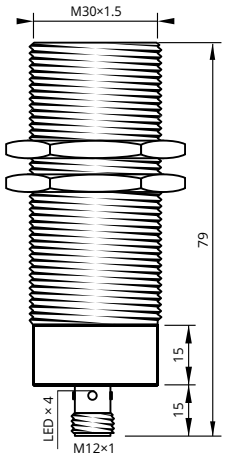
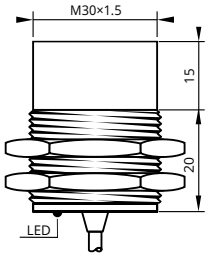
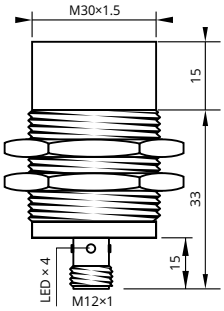
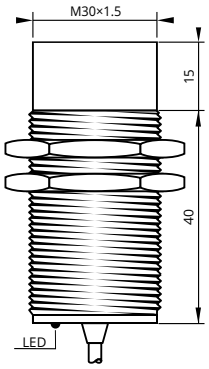
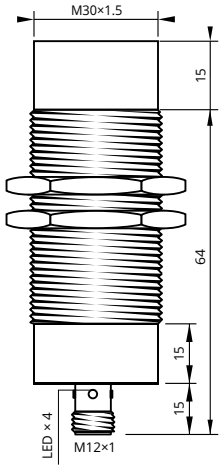
Sensing Distance	Schaltabstand	10 mm		10 mm		10 mm	
Housing Size	Gehäusegröße	M30×1.5		M30×1.5		M30×1.5	
Operating Voltage	Betriebsspannung	24…255 V_{DC}|V_{AC}		24…255 V_{DC}|V_{AC}		24…255 V_{DC}|V_{AC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert	built-in	integriert	built-in	integriert
Current Consumption	Stromverbrauch	<8 mA		<8 mA		<8 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA		200 mA		200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in	integriert	built-in	integriert	built-in	integriert
Load Resistor	Lastwiderstand	<1.5 V @ 200 mA		<1.5 V @ 200 mA		<1.5 V @ 200 mA	
Output Following Frequency	Ausgangsfolgefrequenz	300 Hz		300 Hz		300 Hz	
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85		Alu 0.45 · Brs 0.50 · VA 0.85	
Repeatibility	Wiederholgenauigkeit	<1 % (S_n)		<1 % (S_n)		<1 % (S_n)	
Hysteresis	Hysterese	3…15 %		3…15 %		3…15 %	
Operating Temperature	Betriebstemperatur	–25…+75 °C		–25…+75 °C		–25…+75 °C	
Protection Class	Schutzklasse	IP67		IP67		IP67	
Sensing Face	Sensorfläche	POM		POM		POM	
Housing Material	Gehäusewerkstoff	brass	Messing	brass	Messing	brass	Messing
Connection	Anschluss	PVC, ultra-flex		conn. M12	Stecker M12	PVC, ultra-flex	
Switching Indicator	Schaltanzeige	built-in	integriert	built-in	integriert	built-in	integriert
Article Code PNP, NO	—/—	INS30S10UO35-A2P		INS30S10UO48-M12		INS30S10UO55-A2P	
Article Code PNP, NC	—\—	INS30S10UC35-A2P		INS30S10UC48-M12		INS30S10UC55-A2P	

shielded bündig **M30×1.5 | 10 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**
				
standard	standard	standard	standard	standard
				
10 mm	15 mm	15 mm	15 mm	15 mm
M30×1.5	M30×1.5	M30×1.5	M30×1.5	M30×1.5
24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
300 Hz	150 Hz	150 Hz	150 Hz	150 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS30S10UO79-M12	INS30N15UO35-A2P	INS30N15UO48-M12	INS30N15UO55-A2P	INS30N15UO79-M12
INS30S10UC79-M12	INS30N15UC35-A2P	INS30N15UC48-M12	INS30N15UC55-A2P	INS30N15UC79-M12

Minor changes possible
Geringfügige Änderungen möglich

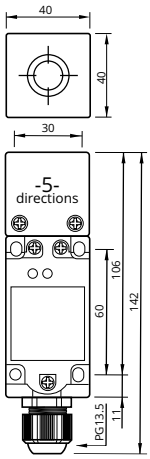
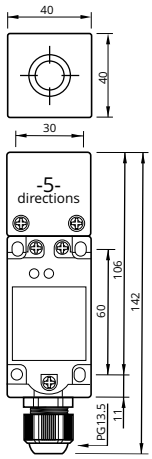
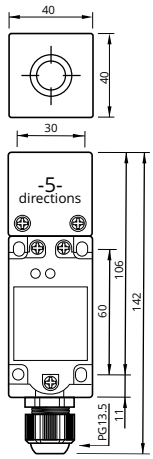
2-Wire AC|DC
2-Leiter AC|DC

	shielded bündig **M30×1.5 | 16 mm**	shielded bündig **M30×1.5 | 16 mm**	shielded bündig **M30×1.5 | 16 mm**
			
	increased erhöht	increased erhöht	increased erhöht
			
Sensing Distance / Schaltabstand	16 mm	16 mm	16 mm
Housing Size / Gehäusegröße	M30×1.5	M30×1.5	M30×1.5
Operating Voltage / Betriebsspannung	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Load Resistor / Lastwiderstand	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Output Following Frequency / Ausgangsfolgefrequenz	150 Hz	150 Hz	150 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection / Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	INS30S16UO35-A2P	INS30S16UO48-M12	INS30S16UO55-A2P
Article Code PNP, NC	INS30S16UC35-A2P	INS30S16UC48-M12	INS30S16UC55-A2P

shielded bündig **M30×1.5 | 16 mm**	unshielded nicht bündig **M30×1.5 | 25 mm**	unshielded nicht bündig **M30×1.5 | 25 mm**	unshielded nicht bündig **M30×1.5 | 25 mm**	unshielded nicht bündig **M30×1.5 | 25 mm**
				
increased erhöht	standard	standard	increased erhöht	increased erhöht
				
16 mm	25 mm	25 mm	25 mm	25 mm
M30×1.5	M30×1.5	M30×1.5	M30×1.5	M30×1.5
24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
150 Hz	150 Hz	150 Hz	100 Hz	100 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
INS30S16UO79-M12	INS30N25UO35-A2P	INS30N25UO48-M12	INS30N25UO55-A2P	INS30N25UO79-M12
INS30S16UC79-M12	INS30N25UC35-A2P	INS30N25UC48-M12	INS30N25UC55-A2P	INS30N25UC79-M12

Minor changes possible
Geringfügige Änderungen möglich

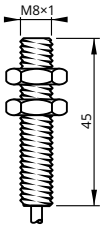
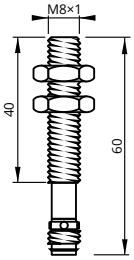
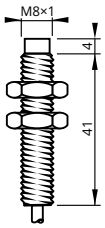
2-Wire AC|DC
2-Leiter AC|DC

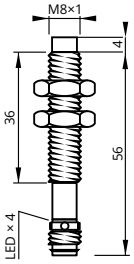
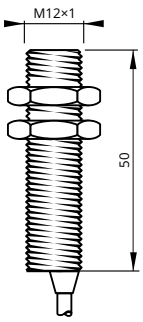
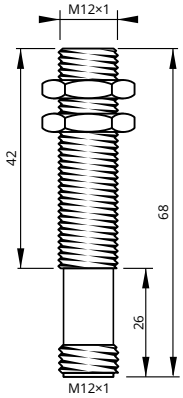
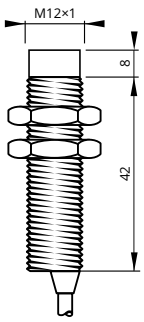
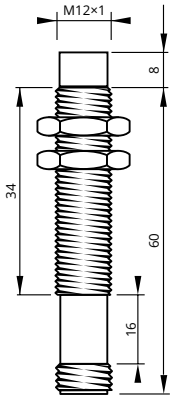
	shielded bündig **40×40 mm | 15 mm**	shielded bündig **40×40 mm | 20 mm**	unshielded nicht bündig **40×40 mm | 30 mm**
			
	standard	increased erhöht	increased erhöht
			

Sensing Distance	Schaltabstand	15 mm	20 mm	30 mm
Housing Size	Gehäusegröße	40×40 mm	40×40 mm	40×40 mm
Operating Voltage	Betriebsspannung	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}	24…255 V_{DC}|V_{AC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<11 mA	<11 mA	<11 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Load Resistor	Lastwiderstand	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
Output Following Frequency	Ausgangsfolgefrequenz	120 Hz	120 Hz	120 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	PBT	PBT	PBT
Housing Material	Gehäusewerkstoff	PBT	PBT	PBT
Connection	Anschluss	terminal Klemme	terminal Klemme	terminal Klemme
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	—/—	INS40S15UOL-PG13	INS40S20UOL-PG13	INS40N30UOL-PG13
Article Code PNP, NC	—\—	INS40S15UCL-PG13	INS40S20UCL-PG13	INS40N30UCL-PG13

Minor changes possible
Geringfügige Änderungen möglich

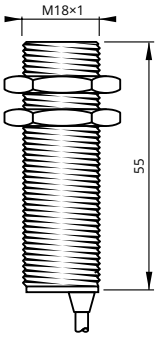
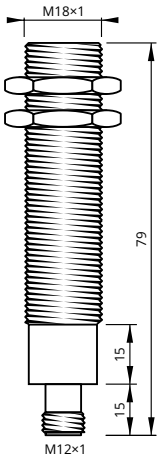
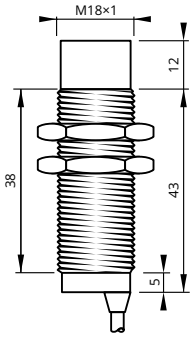
3-Wire Analog Output
3-Leiter Analogausgang

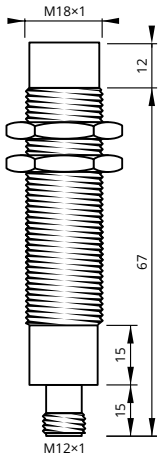
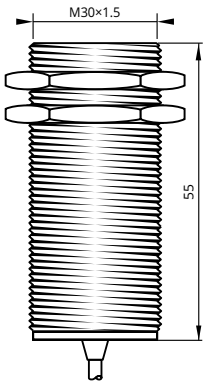
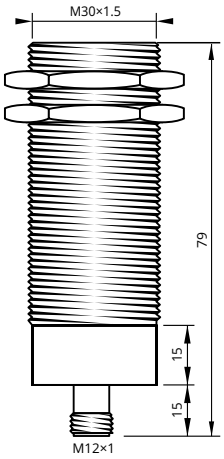
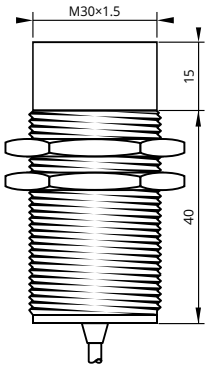
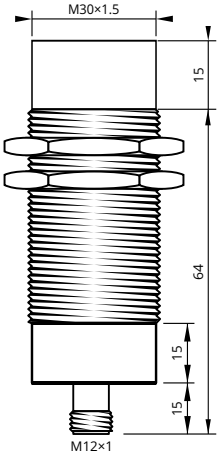
	shielded bündig **M8×1 | 3 mm**	shielded bündig **M8×1 | 3 mm**	unshielded nicht bündig **M8×1 | 6 mm**
			
	extended erweitert	extended erweitert	extended erweitert
			
Sensing Distance / Schaltabstand	3 mm	3 mm	6 mm
Measuring Distance / Messabstand	0.6…3 mm	0.6…3 mm	1.1…6 mm
Housing Size / Gehäusegröße	M8×1	M8×1	M8×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Load Capability / Ausgangsbelastbarkeit	<25 mA	<25 mA	<25 mA
Load Resistor / Lastwiderstand	U: >2 kΩ, I: 400 Ω	U: >2 kΩ, I: 400 Ω	U: >2 kΩ, I: 400 Ω
Output Characteristics / Ausgangsverhalten	U: 10…0 V, I: 20…0 mA	U: 10…0 V, I: 20…0 mA	U: 10…0 V, I: 20…0 mA
Output Following Frequency / Ausgangsfolgefrequenz	100 Hz	100 Hz	100 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility / Wiederholgenauigkeit	<5 % (S_n)	<5 % (S_n)	<5 % (S_n)
Operating Temperature / Betriebstemperatur	0…+70 °C	0…+70 °C	0…+70 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	brass Messing
Connection / Anschluss	PVC, ultra-flex	conn. M8 Stecker M8	PVC, ultra-flex
Article Code Voltage / Spannung	IAV8S3010-N2P	IAV8S3010-N8	IAV8N6010-N2P
Article Code Current / Strom	IAI8S3010-N2P	IAI8S3010-N8	IAI8N6010-N2P

unshielded nicht bündig **M8×1 | 6 mm**	shielded bündig **M12×1 | 6 mm**	shielded bündig **M12×1 | 6 mm**	unshielded nicht bündig **M12×1 | 10 mm**	unshielded nicht bündig **M12×1 | 10 mm**
				
extended erweitert	extended erweitert	extended erweitert	extended erweitert	extended erweitert
				
6 mm	6 mm	6 mm	10 mm	10 mm
1.1…6 mm	0.6…6 mm	0.6…6 mm	3.1…10 mm	3.1…10 mm
M8×1	M12×1	M12×1	M12×1	M12×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<25 mA	<25 mA	<25 mA	<25 mA	<25 mA
U: >2 kΩ, I: 400 Ω	U: >2 kΩ, I: 400 Ω	U: >2 kΩ, I: 400 Ω	U: >2 kΩ, I: 400 Ω	U: >2 kΩ, I: 400 Ω
U: 10…0 V, I: 20…0 mA	U: 10…0 V, I: 20…0 mA	U: 10…0 V, I: 20…0 mA	U: 10…0 V, I: 20…0 mA	U: 10…0 V, I: 20…0 mA
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<5 % (S_n)	<5 % (S_n)	<5 % (S_n)	<5 % (S_n)	<5 % (S_n)
0…+70 °C	0…+70 °C	0…+70 °C	0…+70 °C	0…+70 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
conn. M8 Stecker M8	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
IAV8N6010-N8	IAV12S6010-N2P	IAV12S6010-N12	IAV12N10010-N2P	IAV12N10010-N12
IAI8N6010-N8	IAI12S6010-N2P	IAI12S6010-N12	IAI12N10010-N2P	IAI12N10010-N12

Minor changes possible
Geringfügige Änderungen möglich

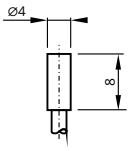
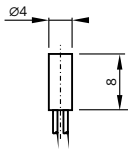
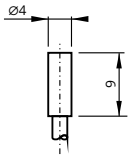
3-Wire Analog Output
3-Leiter Analogausgang

	shielded bündig **M18×1 | 10 mm**	shielded bündig **M18×1 | 10 mm**	unshielded nicht bündig **M18×1 | 20 mm**
			
	extended erweitert	extended erweitert	extended erweitert
			
Sensing Distance / Schaltabstand	10 mm	10 mm	20 mm
Measuring Distance / Messabstand	3.1…10 mm	3.1…10 mm	7.3…20 mm
Housing Size / Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Load Capability / Ausgangsbelastbarkeit	<25 mA	<25 mA	<25 mA
Load Resistor / Lastwiderstand	U: >2 kΩ, I: 400 Ω	U: >2 kΩ, I: 400 Ω	U: >2 kΩ, I: 400 Ω
Output Characteristics / Ausgangsverhalten	U: 10…0 V, I: 20…0 mA	U: 10…0 V, I: 20…0 mA	U: 10…0 V, I: 20…0 mA
Output Following Frequency / Ausgangsfolgefrequenz	100 Hz	100 Hz	100 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<5 % (S_n)	<5 % (S_n)	<5 % (S_n)
Operating Temperature / Betriebstemperatur	0…+70 °C	0…+70 °C	0…+70 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection / Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
Article Code Voltage / Spannung	IAV18S10010-N2P	IAV18S10010-N12	IAV18N20010-N2P
Article Code Current / Strom	IAI18S10010-N2P	IAI18S10010-N12	IAI18N20010-N2P

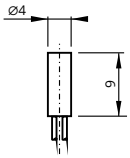
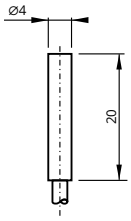
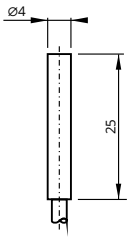
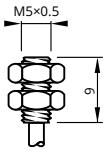
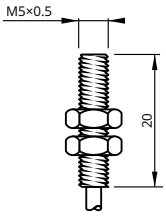
unshielded nicht bündig **M18×1 | 20 mm**	shielded bündig **M30×1.5 | 20 mm**	shielded bündig **M30×1.5 | 20 mm**	unshielded nicht bündig **M30×1.5 | 40 mm**	unshielded nicht bündig **M30×1.5 | 40 mm**
				
extended erweitert	extended erweitert	extended erweitert	extended erweitert	extended erweitert
				
20 mm	20 mm	20 mm	40 mm	40 mm
7.3…20 mm	7.3…20 mm	7.3…20 mm	17.6…40 mm	17.6…40 mm
M18×1	M30×1.5	M30×1.5	M30×1.5	M30×1.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<25 mA	<25 mA	<25 mA	<25 mA	<25 mA
U: >2 kΩ, I: 400 Ω	U: >2 kΩ, I: 400 Ω	U: >2 kΩ, I: 400 Ω	U: >2 kΩ, I: 400 Ω	U: >2 kΩ, I: 400 Ω
U: 10…0 V, I: 20…0 mA	U: 10…0 V, I: 20…0 mA	U: 10…0 V, I: 20…0 mA	U: 10…0 V, I: 20…0 mA	U: 10…0 V, I: 20…0 mA
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<5 % (S_n)	<5 % (S_n)	<5 % (S_n)	<5 % (S_n)	<5 % (S_n)
0…+70 °C	0…+70 °C	0…+70 °C	0…+70 °C	0…+70 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
IAV18N20010-N12	IAV30S20010-N2P	IAV30S20010-N12	IAV30N40010-N2P	IAV30N40010-N12
IAI18N20010-N12	IAI30S20010-N2P	IAI30S20010-N12	IAI30N40010-N2P	IAI30N40010-N12

Minor changes possible
Geringfügige Änderungen möglich

2-Wire NAMUR
2-Leiter NAMUR

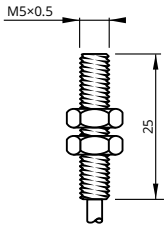
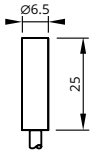
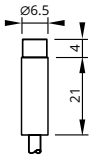
shielded bündig **Ø 4 mm | 0.8 mm**	shielded bündig **Ø 4 mm | 0.8 mm**	shielded bündig **Ø 4 mm | 0.8 mm**
		
standard	standard	standard
		

Sensing Distance	Schaltabstand	0.8 mm	0.8 mm	0.8 mm
Housing Size	Gehäusegröße	Ø 4 mm – NAMUR	Ø 4 mm – NAMUR	Ø 4 mm – NAMUR
Operating Voltage	Betriebsspannung	6…12 V_{DC}, NAMUR	6…12 V_{DC}, NAMUR	6…12 V_{DC}, NAMUR
Reverse Polarity Protection	Verpolungsschutz	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker
Current Consumption	Stromverbrauch	>2.1 mA	>2.1 mA	>2.1 mA
Off-State Current	Strom unbedämpft	<1.1 mA	<1.1 mA	<1.1 mA
Short Circuit Protection	Kurzschlussschutz	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker
Voltage Drop	Spannungsabfall	amplifier	amplifier	amplifier
Switching Frequency	Schaltfrequenz	2000 Hz	2000 Hz	2000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatibility	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…75 °C	–25…75 °C	–25…75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection	Anschluss	PUR, ultra-flex	PUR, ultra-flex	PUR, ultra-flex
Switching Indicator	Schaltanzeige	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker
Article Code NAMUR		INSD4S08NA8-N2P	INSD4S08NA8-20F2	INSD4S08NA9-N2P

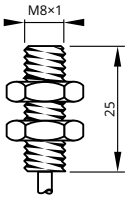
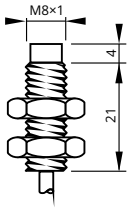
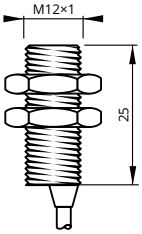
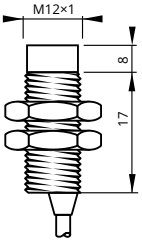
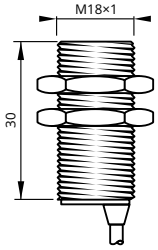
shielded bündig **Ø 4 mm | 0.8 mm**	shielded bündig **Ø 4 mm | 0.8 mm**	shielded bündig **Ø 4 mm | 0.8 mm**	shielded bündig **M5 | 0.8 mm**	shielded bündig **M5 | 0.8 mm**
				
standard	standard	standard	standard	standard
				
0.8 mm	0.8 mm	0.8 mm	0.8 mm	0.8 mm
Ø 4 mm – NAMUR	Ø 4 mm – NAMUR	Ø 4 mm – NAMUR	M5 – NAMUR	M5 – NAMUR
6…12 V_{DC}, NAMUR	6…12 V_{DC}, NAMUR	6…12 V_{DC}, NAMUR	6…12 V_{DC}, NAMUR	6…12 V_{DC}, NAMUR
amplifier Verstärker	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker
>2.1 mA	>2.1 mA	>2.1 mA	>2.1 mA	>2.1 mA
<1.1 mA	<1.1 mA	<1.1 mA	<1.1 mA	<1.1 mA
amplifier Verstärker	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker
amplifier	amplifier	amplifier	amplifier	amplifier
2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…75 °C	–25…75 °C	–25…75 °C	–25…75 °C	–25…75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
PUR, ultra-flex	PUR, ultra-flex	PUR, ultra-flex	PUR, ultra-flex	PUR, ultra-flex
amplifier Verstärker	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker
INSD4S08NA9-20F2	INSD4S08NA20-N2P	INSD4S08NA25-N2P	INS5S08NA9-N2P	INS5S08NA20-N2P

Minor changes possible
Geringfügige Änderungen möglich

2-Wire NAMUR
2-Leiter NAMUR

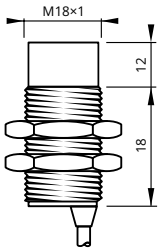
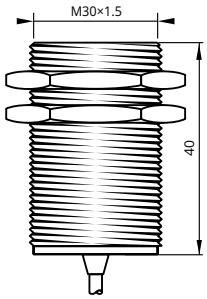
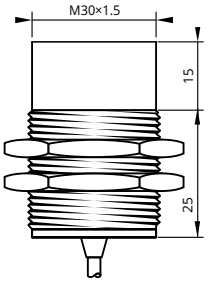
	shielded bündig **M5 | 0.8 mm**	shielded bündig **M8 | 1 mm**	unshielded nicht bündig **M8 | 2 mm**
			
	standard	standard	standard
			

Sensing Distance	Schaltabstand	0.8 mm	1 mm	2 mm
Housing Size	Gehäusegröße	M5 – NAMUR	M8 – NAMUR	M8 – NAMUR
Operating Voltage	Betriebsspannung	6…12 V_{DC}, NAMUR	6…12 V_{DC}, NAMUR	6…12 V_{DC}, NAMUR
Reverse Polarity Protection	Verpolungsschutz	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker
Current Consumption	Stromverbrauch	>2.1 mA	>2.1 mA	>2.1 mA
Off-State Current	Strom unbedämpft	<1.1 mA	<1.1 mA	<1.1 mA
Short Circuit Protection	Kurzschlussschutz	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker
Voltage Drop	Spannungsabfall	amplifier	amplifier	amplifier
Switching Frequency	Schaltfrequenz	2000 Hz	2000 Hz	1000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…75 °C	–25…75 °C	–25…75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection	Anschluss	PUR, ultra-flex	PVC, ultra-flex	PVC, ultra-flex
Switching Indicator	Schaltanzeige	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker
Article Code NAMUR		INS5S08NA25-N2P	INSD6S1NA25-N2P	INSD6N2NA25-N2P

shielded bündig **M8 | 1 mm**	unshielded nicht bündig **M8 | 2 mm**	shielded bündig **M12 | 2 mm**	unshielded nicht bündig **M12 | 4 mm**	shielded bündig **M18 | 5 mm**
				
standard	standard	standard	standard	standard
				
1 mm	2 mm	2 mm	4 mm	5 mm
M8 – NAMUR	M8 – NAMUR	M12 – NAMUR	M12 – NAMUR	M18 – NAMUR
6…12 V_{DC}, NAMUR	6…12 V_{DC}, NAMUR	6…12 V_{DC}, NAMUR	6…12 V_{DC}, NAMUR	6…12 V_{DC}, NAMUR
amplifier Verstärker	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker
>2.1 mA	>2.1 mA	>2.1 mA	>2.1 mA	>2.1 mA
<1.1 mA	<1.1 mA	<1.1 mA	<1.1 mA	<1.1 mA
amplifier Verstärker	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker
amplifier	amplifier	amplifier	amplifier	amplifier
2000 Hz	1000 Hz	1000 Hz	500 Hz	500 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…75 °C	–25…75 °C	–25…75 °C	–25…75 °C	–25…75 °C
IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM
SS303 Edelstahl	SS303 Edelstahl	brass Messing	brass Messing	brass Messing
PVC, ultra-flex	PVC, ultra-flex	PVC, ultra-flex	PVC, ultra-flex	PVC, ultra-flex
amplifier Verstärker	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker
INS8S1NA25-N2P	INS8N2NA25-N2P	INS12S2NA25-N2P	INS12N4NA25-N2P	INS18S5NA30-N2P

Minor changes possible
Geringfügige Änderungen möglich

2-Wire NAMUR
2-Leiter NAMUR

unshielded nicht bündig **M18 | 8 mm**	shielded bündig **M30 | 10 mm**	unshielded nicht bündig **M30 | 15 mm**
		
standard	standard	standard
		

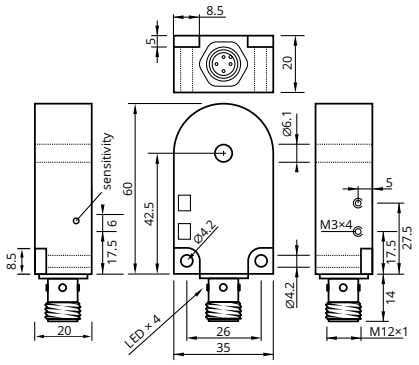
Sensing Distance	Schaltabstand	8 mm	10 mm	15 mm
Housing Size	Gehäusegröße	M18 – NAMUR	M30 – NAMUR	M30 – NAMUR
Operating Voltage	Betriebsspannung	6…12 V_{DC}, NAMUR	6…12 V_{DC}, NAMUR	6…12 V_{DC}, NAMUR
Reverse Polarity Protection	Verpolungsschutz	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker
Current Consumption	Stromverbrauch	>2.1 mA	>2.1 mA	>2.1 mA
Off-State Current	Strom unbedämpft	<1.1 mA	<1.1 mA	<1.1 mA
Short Circuit Protection	Kurzschlussschutz	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker
Voltage Drop	Spannungsabfall	amplifier	amplifier	amplifier
Switching Frequency	Schaltfrequenz	300 Hz	500 Hz	500 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…75 °C	–25…75 °C	–25…75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection	Anschluss	PVC, ultra-flex	PVC, ultra-flex	PVC, ultra-flex
Switching Indicator	Schaltanzeige	amplifier Verstärker	amplifier Verstärker	amplifier Verstärker
Article Code NAMUR		INS18N8NA30-N2P	INS30S10NA40-N2P	INS30N15NA40-N2P

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

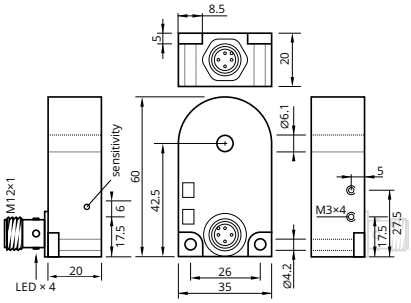
Ø 6.1 mm
adjustable, Ø >1 mm
einstellbar, Ø >1 mm

static
statisch



Ø 6.1 mm
adjustable, Ø >1 mm
einstellbar, Ø >1 mm

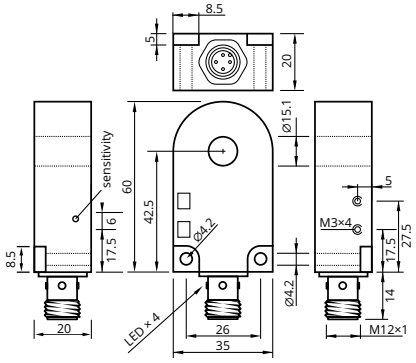
static
statisch



Resolution	Auflösung	adjustable, Ø >1 mm	einstellbar, Ø >1 mm	adjustable, Ø >1 mm	einstellbar, Ø >1 mm
Ring Diameter	Ringdurchmesser	Ø 6.1 mm		Ø 6.1 mm	
Operating Voltage	Betriebsspannung	10…30 V_{DC}		10…30 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert	built-in	integriert
Current Consumption	Stromverbrauch	<10 mA		<10 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA		200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in, self-resetting	integriert, selbstrück.	built-in, self-resetting	integriert, selbstrück.
Impulse Lengthening	Impulsverlängerung				
Voltage Drop	Spannungsabfall	<2 V @ 200 mA		<2 V @ 200 mA	
Adjustment	Einstellung	multi turn pot.	Mehrgangpoti	multi turn pot.	Mehrgangpoti
Object Speed	Teilegeschwindigkeit	– | <35 m/s (<115 ft/s)		– | <35 m/s (<115 ft/s)	
Repeatibility	Wiederholgenauigkeit	<1%		<1%	
Response Time | Release Time	Ansprechzeit | Abfallzeit	0.5 ms | 10 ms		0.5 ms | 10 ms	
Operating Temperature	Betriebstemperatur	–25…+70 °C		–25…+70 °C	
Protection Class	Schutzklasse	IP67		IP67	
Sensing Face	Sensorfläche	PBT		PBT	
Housing Material	Gehäusewerkstoff	PA 6.6		PA 6.6	
Connection	Anschluss	conn. M12	Stecker M12	conn. M12	Stecker M12
Switching Indicator	Schaltanzeige	built-in	integriert	built-in	integriert
Article Code PNP, NO	⎍⎍	IR 06 PSK-ST4		IR 06 PSK-R-ST4	
Article Code PNP, NC	⎍⎍	IR 06 POK-ST4		IR 06 POK-R-ST4	
Article Code PNP, NO|NC	⎍⎍ | ⎍⎍				
Article Code NPN, NO	⎍⎍	IR 06 NSK-ST4		IR 06 NSK-R-ST4	
Article Code NPN, NC	⎍⎍	IR 06 NOK-ST4		IR 06 NOK-R-ST4	
Article Code NPN, NO|NC	⎍⎍ | ⎍⎍				

∅ 10.1 mm
adjustable, ∅ >1 mm
einstellbar, ∅ >1 mm

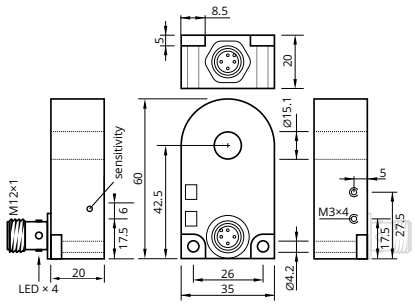
static
statisch



adjustable, ∅ >1 mm	einstellbar, ∅ >1 mm
∅ 10.1 mm	
10…30 V_{DC}	
built-in	integriert
<10 mA	
200 mA	
built-in, self-resetting	integriert, selbstrück.
<2 V @ 200 mA	
multi turn pot.	Mehrgangpoti
– | <35 m/s (<115 ft/s)	
<1%	
0.5 ms | 10 ms	
–25…+70 °C	
IP67	
PBT	
PA 6.6	
conn. M12	Stecker M12
built-in	integriert
IR 10 PSK-ST4	
IR 10 POK-ST4	
IR 10 NSK-ST4	
IR 10 NOK-ST4	

∅ 10.1 mm
adjustable, ∅ >1 mm
einstellbar, ∅ >1 mm

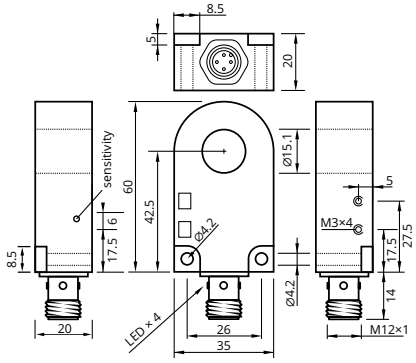
static
statisch



adjustable, ∅ >1 mm	einstellbar, ∅ >1 mm
∅ 10.1 mm	
10…30 V_{DC}	
built-in	integriert
<10 mA	
200 mA	
built-in, self-resetting	integriert, selbstrück.
<2 V @ 200 mA	
multi turn pot.	Mehrgangpoti
– | <35 m/s (<115 ft/s)	
<1%	
0.5 ms | 10 ms	
–25…+70 °C	
IP67	
PBT	
PA 6.6	
conn. M12	Stecker M12
built-in	integriert
IR 10 PSK-R-ST4	
IR 10 POK-R-ST4	
IR 10 NSK-R-ST4	
IR 10 NOK-R-ST4	

∅ 15.1 mm
adjustable, ∅ >2 mm
einstellbar, ∅ >2 mm

static
statisch



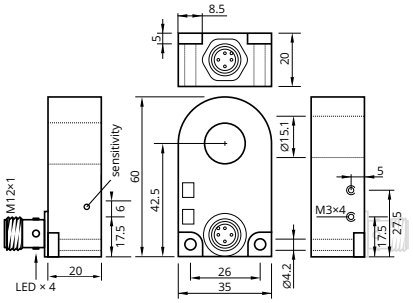
adjustable, ∅ >2 mm	einstellbar, ∅ >2 mm
∅ 15.1 mm	
10…30 V_{DC}	
built-in	integriert
<10 mA	
200 mA	
built-in, self-resetting	integriert, selbstrück.
<2 V @ 200 mA	
multi turn pot.	Mehrgangpoti
– | <35 m/s (<115 ft/s)	
<1%	
0.5 ms | 10 ms	
–25…+70 °C	
IP67	
PBT	
PA 6.6	
conn. M12	Stecker M12
built-in	integriert
IR 15 PSK-ST4	
IR 15 POK-ST4	
IR 15 NSK-ST4	
IR 15 NOK-ST4	

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

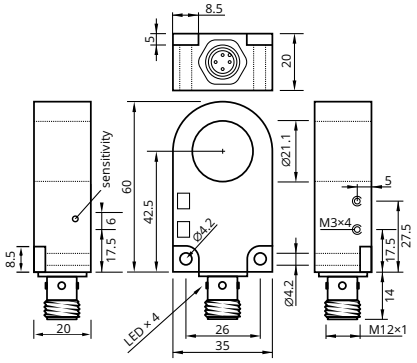
Ø 15.1 mm
adjustable, Ø >2 mm
einstellbar, Ø >2 mm

static
statisch



Ø 21.1 mm
adjustable, Ø >2 mm
einstellbar, Ø >2 mm

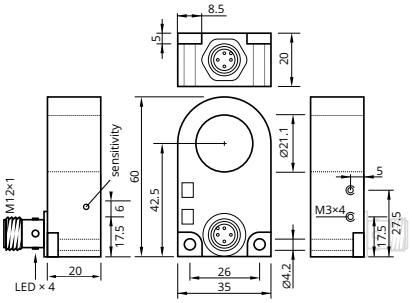
static
statisch



Resolution	Auflösung	adjustable, Ø >2 mm	einstellbar, Ø >2 mm	adjustable, Ø >2 mm	einstellbar, Ø >2 mm
Ring Diameter	Ringdurchmesser	Ø 15.1 mm		Ø 21.1 mm	
Operating Voltage	Betriebsspannung	10…30 V_{DC}		10…30 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert	built-in	integriert
Current Consumption	Stromverbrauch	<10 mA		<10 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA		200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in, self-resetting	integriert, selbstrück.	built-in, self-resetting	integriert, selbstrück.
Impulse Lengthening	Impulsverlängerung				
Voltage Drop	Spannungsabfall	<2 V @ 200 mA		<2 V @ 200 mA	
Adjustment	Einstellung	multi turn pot.	Mehrgangpoti	multi turn pot.	Mehrgangpoti
Object Speed	Teilegeschwindigkeit	– | <35 m/s (<115 ft/s)		– | <35 m/s (<115 ft/s)	
Repeatibility	Wiederholgenauigkeit	<1%		<1%	
Response Time | Release Time	Ansprechzeit | Abfallzeit	0.5 ms | 10 ms		0.5 ms | 10 ms	
Operating Temperature	Betriebstemperatur	–25…+70 °C		–25…+70 °C	
Protection Class	Schutzklasse	IP67		IP67	
Sensing Face	Sensorfläche	PBT		PBT	
Housing Material	Gehäusewerkstoff	PA 6.6		PA 6.6	
Connection	Anschluss	conn. M12	Stecker M12	conn. M12	Stecker M12
Switching Indicator	Schaltanzeige	built-in	integriert	built-in	integriert
Article Code PNP, NO	⎍⎍	IR 15 PSK-R-ST4		IR 21 PSK-ST4	
Article Code PNP, NC	⎍⎎	IR 15 POK-R-ST4		IR 21 POK-ST4	
Article Code PNP, NO|NC	⎍⎍ | ⎍⎎				
Article Code NPN, NO	⎍⎍	IR 15 NSK-R-ST4		IR 21 NSK-ST4	
Article Code NPN, NC	⎍⎎	IR 15 NOK-R-ST4		IR 21 NOK-ST4	
Article Code NPN, NO|NC	⎍⎍ | ⎍⎎				

Ø 21.1 mm
adjustable, Ø >2 mm
einstellbar, Ø >2 mm

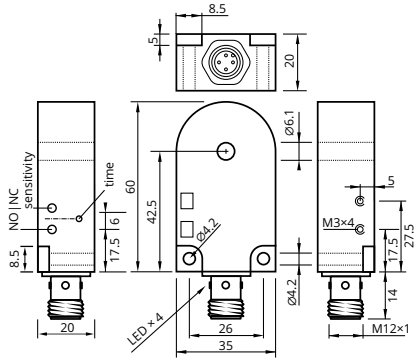
static
statisch



adjustable, Ø >2 mm	einstellbar, Ø >2 mm
Ø 21.1 mm	
10…30 V_{DC}	
built-in	integriert
<10 mA	
200 mA	
built-in, self-resetting	integriert, selbstrück.
<2 V @ 200 mA	
multi turn pot.	Mehrgangpoti
– | <35 m/s (<115 ft/s)	
<1%	
0.5 ms | 10 ms	
–25…+70 °C	
IP67	
PBT	
PA 6.6	
conn. M12	Stecker M12
built-in	integriert
IR 21 PSK-R-ST4	
IR 21 POK-R-ST4	
IR 21 NSK-R-ST4	
IR 21 NOK-R-ST4	

Ø 6.1 mm
adjustable, Ø >0.5 mm
einstellbar, Ø >0,6 mm

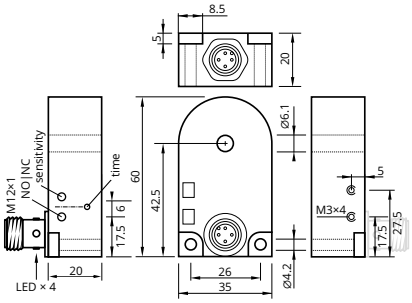
dynamic
dynamisch



adjustable, Ø >0.5 mm	einstellbar, Ø >0,5 mm
Ø 6.1 mm	
10…30 V_{DC}	
built-in	integriert
<10 mA	
200 mA	
built-in, self-resetting	integriert, selbstrück.
0…150 ms	
<2 V @ 200 mA	
multi turn pot.	Mehrgangpoti
– | <35 m/s (<115 ft/s)	
<1%	
0.2 ms | 0.2 ms	
–25…+70 °C	
IP67	
PBT	
PA 6.6	
conn. M12	Stecker M12
built-in	integriert
IRD 06 PUK-ST4	
IRD 06 NUK-ST4	

Ø 6.1 mm
adjustable, Ø >0.5 mm
einstellbar, Ø >0,6 mm

dynamic
dynamisch



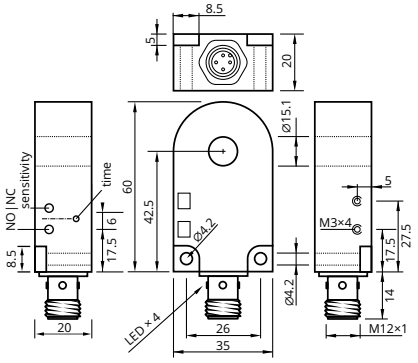
adjustable, Ø >0.5 mm	einstellbar, Ø >0,5 mm
Ø 6.1 mm	
10…30 V_{DC}	
built-in	integriert
<10 mA	
200 mA	
built-in, self-resetting	integriert, selbstrück.
0…150 ms	
<2 V @ 200 mA	
multi turn pot.	Mehrgangpoti
– | <35 m/s (<115 ft/s)	
<1%	
0.2 ms | 0.2 ms	
–25…+70 °C	
IP67	
PBT	
PA 6.6	
conn. M12	Stecker M12
built-in	integriert
IRD 06 PUK-R-ST4	
IRD 06 NUK-R-ST4	

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

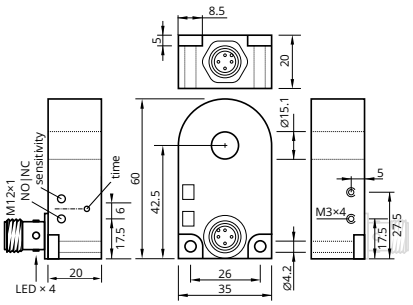
Ø 10.1 mm
adjustable, Ø >0.6 mm
einstellbar, Ø >0,6 mm

dynamic
dynamisch



Ø 10.1 mm
adjustable, Ø >0.6 mm
einstellbar, Ø >0,6 mm

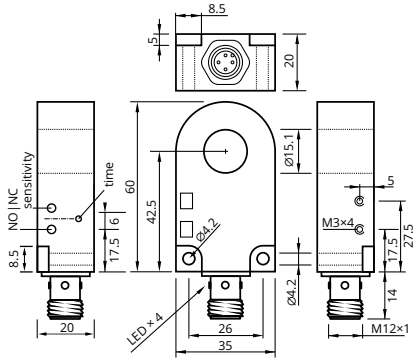
dynamic
dynamisch



Resolution	Auflösung	adjustable, Ø >0.6 mm	einstellbar, Ø >0,6 mm	adjustable, Ø >0.6 mm	einstellbar, Ø >0,6 mm
Ring Diameter	Ringdurchmesser	Ø 10.1 mm		Ø 10.1 mm	
Operating Voltage	Betriebsspannung	10…30 V_{DC}		10…30 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert	built-in	integriert
Current Consumption	Stromverbrauch	<10 mA		<10 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA		200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in, self-resetting	integriert, selbstrück.	built-in, self-resetting	integriert, selbstrück.
Impulse Lengthening	Impulsverlängerung	0…150 ms		0…150 ms	
Voltage Drop	Spannungsabfall	<2 V @ 200 mA		<2 V @ 200 mA	
Adjustment	Einstellung	multi turn pot.	Mehrgangpoti	multi turn pot.	Mehrgangpoti
Object Speed	Teilegeschwindigkeit	– | <35 m/s (<115 ft/s)		– | <35 m/s (<115 ft/s)	
Repeatibility	Wiederholgenauigkeit	<1%		<1%	
Response Time | Release Time	Ansprechzeit | Abfallzeit	0.2 ms | 0.2 ms		0.2 ms | 0.2 ms	
Operating Temperature	Betriebstemperatur	–25…+70 °C		–25…+70 °C	
Protection Class	Schutzklasse	IP67		IP67	
Sensing Face	Sensorfläche	PBT		PBT	
Housing Material	Gehäusewerkstoff	PA 6.6		PA 6.6	
Connection	Anschluss	conn. M12	Stecker M12	conn. M12	Stecker M12
Switching Indicator	Schaltanzeige	built-in	integriert	built-in	integriert
Article Code PNP, NO	⎍⎍				
Article Code PNP, NC	⎍⎌				
Article Code PNP, NO|NC	⎍⎍ | ⎍⎌	IRD 10 PUK-ST4		IRD 10 PUK-R-ST4	
Article Code NPN, NO	⎍⎍				
Article Code NPN, NC	⎍⎌				
Article Code NPN, NO|NC	⎍⎍ | ⎍⎌	IRD 10 NUK-ST4		IRD 10 NUK-R-ST4	

∅ 15.1 mm
adjustable, ∅ >0.8 mm
einstellbar, ∅ >0,8 mm

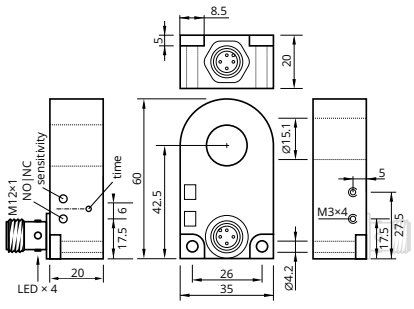
dynamic
dynamisch



adjustable, ∅ >0.8 mm	einstellbar, ∅ >0,8 mm
∅ 15.1 mm	
10…30 V_{DC}	
built-in	integriert
<10 mA	
200 mA	
built-in, self-resetting	integriert, selbstrück.
0…150 ms	
<2 V @ 200 mA	
multi turn pot.	Mehrgangpoti
– | <35 m/s (<115 ft/s)	
<1%	
0.2 ms | 0.2 ms	
–25…+70 °C	
IP67	
PBT	
PA 6.6	
conn. M12	Stecker M12
built-in	integriert
IRD 15 PUK-ST4	
IRD 15 NUK-ST4	

∅ 15.1 mm
adjustable, ∅ >0.8 mm
einstellbar, ∅ >0,8 mm

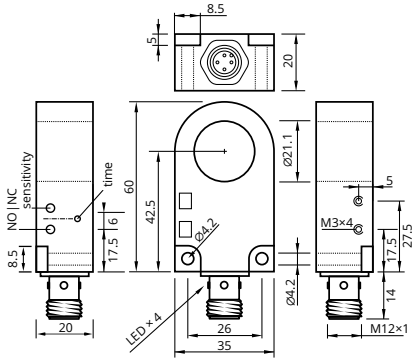
dynamic
dynamisch



adjustable, ∅ >0.8 mm	einstellbar, ∅ >0,8 mm
∅ 15.1 mm	
10…30 V_{DC}	
built-in	integriert
<10 mA	
200 mA	
built-in, self-resetting	integriert, selbstrück.
0…150 ms	
<2 V @ 200 mA	
multi turn pot.	Mehrgangpoti
– | <35 m/s (<115 ft/s)	
<1%	
0.2 ms | 0.2 ms	
–25…+70 °C	
IP67	
PBT	
PA 6.6	
conn. M12	Stecker M12
built-in	integriert
IRD 15 PUK-R-ST4	
IRD 15 NUK-R-ST4	

∅ 21.1 mm
adjustable, ∅ >1.0 mm
einstellbar, ∅ >1,0 mm

dynamic
dynamisch



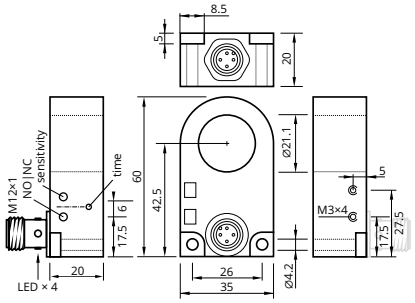
adjustable, ∅ >1.0 mm	einstellbar, ∅ >1,0 mm
∅ 21.1 mm	
10…30 V_{DC}	
built-in	integriert
<10 mA	
200 mA	
built-in, self-resetting	integriert, selbstrück.
0…150 ms	
<2 V @ 200 mA	
multi turn pot.	Mehrgangpoti
– | <35 m/s (<115 ft/s)	
<1%	
0.2 ms | 0.2 ms	
–25…+70 °C	
IP67	
PBT	
PA 6.6	
conn. M12	Stecker M12
built-in	integriert
IRD 21 PUK-ST4	
IRD 21 NUK-ST4	

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

Ø 21.1 mm
adjustable, Ø >1.0 mm
einstellbar, Ø >1,0 mm

dynamic
dynamisch



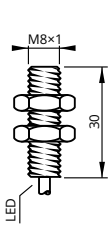
Resolution	Auflösung	adjustable, Ø >1.0 mm	einstellbar, Ø >1,0 mm
Ring Diameter	Ringdurchmesser	Ø 21.1 mm	
Operating Voltage	Betriebsspannung	10…30 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert
Current Consumption	Stromverbrauch	<10 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in, self-resetting	integriert, selbstrück.
Impulse Lengthening	Impulsverlängerung	0…150 ms	
Voltage Drop	Spannungsabfall	<2 V @ 200 mA	
Adjustment	Einstellung	multi turn pot.	Mehrgangpoti
Object Speed	Teilegeschwindigkeit	– | <35 m/s (<115 ft/s)	
Repeatibility	Wiederholgenauigkeit	<1%	
Response Time | Release Time	Ansprechzeit | Abfallzeit	0.2 ms | 0.2 ms	
Operating Temperature	Betriebstemperatur	–25…+70 °C	
Protection Class	Schutzklasse	IP67	
Sensing Face	Sensorfläche	PBT	
Housing Material	Gehäusewerkstoff	PA 6.6	
Connection	Anschluss	conn. M12	Stecker M12
Switching Indicator	Schaltanzeige	built-in	integriert
Article Code PNP, NO	⎍⎍		
Article Code PNP, NC	⎍⎌		
Article Code PNP, NO|NC	⎍⎍ | ⎍⎌	IRD 21 PUK-R-ST4	
Article Code NPN, NO	⎍⎍		
Article Code NPN, NC	⎍⎌		
Article Code NPN, NO|NC	⎍⎍ | ⎍⎌	IRD 21 NUK-R-ST4	

Minor changes possible
Geringfügige Änderungen möglich

3-Wire Weld-Field Immune
3-Leiter Schweißfest

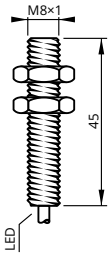
shielded
bündig
M8×1 | 1 mm

standard



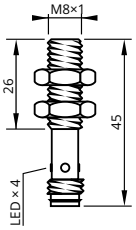
shielded
bündig
M8×1 | 1 mm

standard



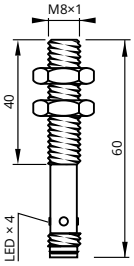
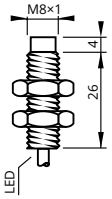
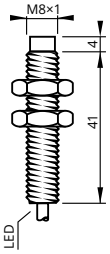
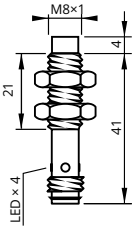
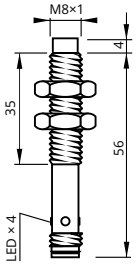
shielded
bündig
M8×1 | 1 mm

standard



Sensing Distance	Schaltabstand	1 mm	1 mm	1 mm
Housing Size	Gehäusegröße	M8×1	M8×1	M8×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	1000 Hz	1000 Hz	1000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	PTFE	PTFE	PTFE
Housing Material	Gehäusewerkstoff	SS303, PTFE coated*	SS303, PTFE coated*	SS303, PTFE coated
Connection	Anschluss	PUR, ultra-flex	PUR, ultra-flex	conn. M8 Stecker M8
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	ISF8S1PO30-A2P	ISF8S1PO45-A2P	ISF8S1PO45-M8
Article Code PNP, NC	⎍	ISF8S1PC30-A2P	ISF8S1PC45-A2P	ISF8S1PC45-M8
Article Code NPN, NO	⎍	ISF8S1NO30-A2P	ISF8S1NO45-A2P	ISF8S1NO45-M8
Article Code NPN, NC	⎍	ISF8S1NC30-A2P	ISF8S1NC45-A2P	ISF8S1NC45-M8

* Edelstahl, PTFE-beschichtet

shielded bündig **M8×1 | 1 mm**	unshielded nicht bündig **M8×1 | 2 mm**	unshielded nicht bündig **M8×1 | 2 mm**	unshielded nicht bündig **M8×1 | 2 mm**	unshielded nicht bündig **M8×1 | 2 mm**
				
standard	standard	standard	standard	standard
				
1 mm	2 mm	2 mm	2 mm	2 mm
M8×1	M8×1	M8×1	M8×1	M8×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
1000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
PTFE	PTFE	PTFE	PTFE	PTFE
SS303, PTFE coated	SS303, PTFE coated	SS303, PTFE coated	SS303, PTFE coated	SS303, PTFE coated
conn. M8 Stecker M8	PUR, ultra-flex	PUR, ultra-flex	conn. M8 Stecker M8	conn. M8 Stecker M8
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
ISF8S1PO60-M8	ISF8-N2PO30-A2P	ISF8-N2PO45-A2P	ISF8-N2PO45-M8	ISF8-N2PO60-M8
ISF8S1PC60-M8	ISF8-N2PC30-A2P	ISF8-N2PC45-A2P	ISF8-N2PC45-M8	ISF8-N2PC60-M8
ISF8S1NO60-M8	ISF8N2NO30-A2P	ISF8N2NO45-A2P	ISF8N2NO45-M8	ISF8N2NO60-M8
ISF8S1NC60-M8	ISF8N2NC30-A2P	ISF8N2NC45-A2P	ISF8N2NC45-M8	ISF8N2NC60-M8

Minor changes possible
Geringfügige Änderungen möglich

3-Wire Weld-Field Immune
3-Leiter Schweißfest

shielded
bündig
M12×1 | 2 mm

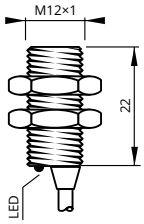
standard

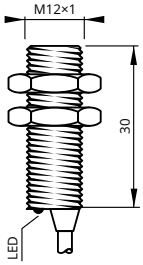
shielded
bündig
M12×1 | 2 mm

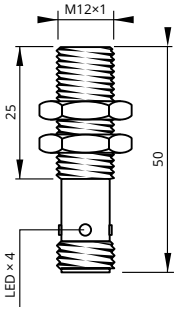
standard

shielded
bündig
M12×1 | 2 mm

standard

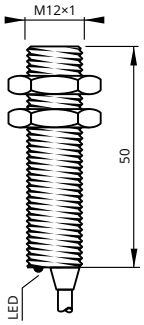
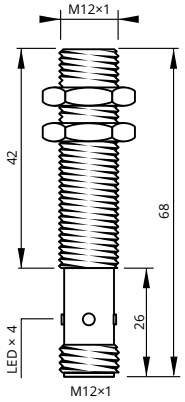
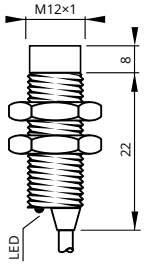
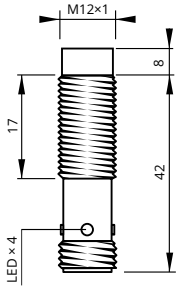
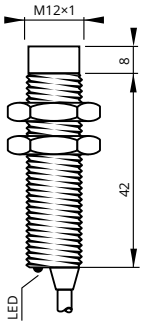






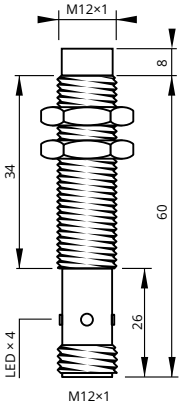
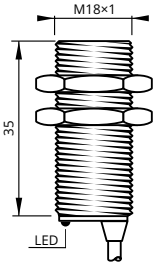
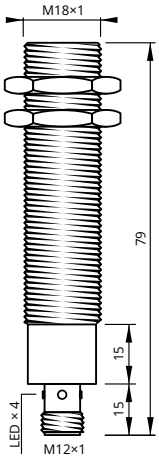
Sensing Distance	Schaltabstand	2 mm	2 mm	2 mm
Housing Size	Gehäusegröße	M12×1	M12×1	M12×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	1000 Hz	1000 Hz	1000 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	PTFE	PTFE	PTFE
Housing Material	Gehäusewerkstoff	brass, PTFE coated*	brass, PTFE coated*	brass, PTFE coated*
Connection	Anschluss	PUR, ultra-flex	PUR, ultra-flex	conn. M12 Stecker M12
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	ISF12S2PO22-A2P	ISF12S2PO30-A2P	ISF12S2PO50-M12
Article Code PNP, NC	⎍	ISF12S2PC22-A2P	ISF12S2PC30-A2P	ISF12S2PC50-M12
Article Code NPN, NO	⎍	ISF12S2NO22-A2P	ISF12S2NO30-A2P	ISF12S2NO50-M12
Article Code NPN, NC	⎍	ISF12S2NC22-A2P	ISF12S2NC30-A2P	ISF12S2NC50-M12

* Messing, PTFE-beschichtet

shielded bündig **M12×1 | 2 mm**	shielded bündig **M12×1 | 2 mm**	unshielded nicht bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 4 mm**
				
standard	standard	standard	standard	standard
				
2 mm	2 mm	4 mm	4 mm	4 mm
M12×1	M12×1	M12×1	M12×1	M12×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
1000 Hz	1000 Hz	750 Hz	750 Hz	750 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
PTFE	PTFE	PTFE	PTFE	PTFE
brass, PTFE coated*	brass, PTFE coated*	brass, PTFE coated*	brass, PTFE coated*	brass, PTFE coated*
PUR, ultra-flex	conn. M12 Stecker M12	PUR, ultra-flex	conn. M12 Stecker M12	PUR, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
ISF12S2PO50-A2P	ISF12S2PO68-M12	ISF12N4PO30-A2P	ISF12N4PO50-M12	ISF12N4PO50-A2P
ISF12S2PC50-A2P	ISF12S2PC68-M12	ISF12N4PC30-A2P	ISF12N4PC50-M12	ISF12N4PC50-A2P
ISF12S2NO50-A2P	ISF12S2NO68-M12	ISF12N4NO30-A2P	ISF12N4NO50-M12	ISF12N4NO50-A2P
ISF12S2NC50-A2P	ISF12S2NC68-M12	ISF12N4NC30-A2P	ISF12N4NC50-M12	ISF12N4NC50-A2P

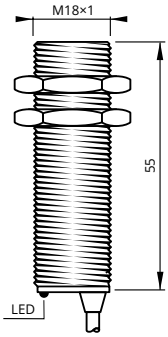
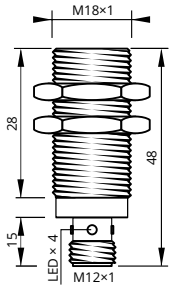
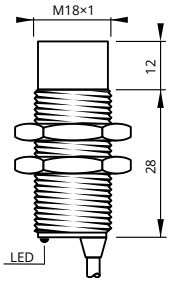
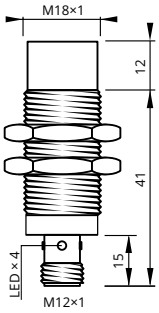
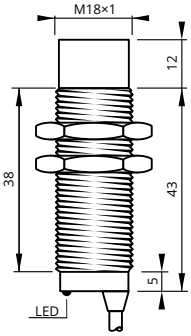
Minor changes possible
Geringfügige Änderungen möglich

3-Wire Weld-Field Immune
3-Leiter Schweißfest

unshielded nicht bündig **M12×1 | 4 mm**	shielded bündig **M18×1 | 5 mm**	shielded bündig **M18×1 | 5 mm**
		
standard	standard	standard
		

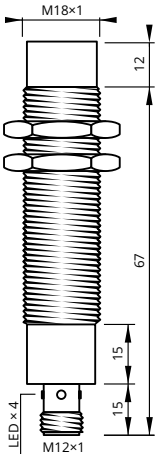
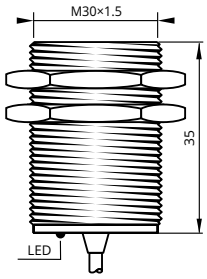
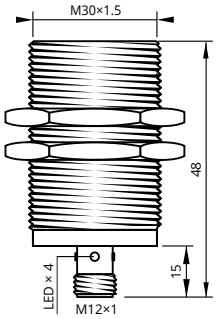
Sensing Distance	Schaltabstand	4 mm	5 mm	5 mm
Housing Size	Gehäusegröße	M12×1	M18×1	M18×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency	Schaltfrequenz	750 Hz	750 Hz	750 Hz
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis	Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature	Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class	Schutzklasse	IP67	IP67	IP67
Sensing Face	Sensorfläche	PTFE	PTFE	PTFE
Housing Material	Gehäusewerkstoff	brass, PTFE coated*	brass, PTFE coated*	brass, PTFE coated*
Connection	Anschluss	conn. M12 Stecker M12	PUR, ultra-flex	conn. M12 Stecker M12
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	ISF12N4PO68-M12	ISF18S5PO35-A2P	ISF18S5PO48-M12
Article Code PNP, NC	⎍	ISF12N4PC68-M12	ISF18S5PC35-A2P	ISF18S5PC48-M12
Article Code NPN, NO	⎍	ISF12N4NO68-M12	ISF18S5NO35-A2P	ISF18S5NO48-M12
Article Code NPN, NC	⎍	ISF12N4NC68-M12	ISF18S5NC35-A2P	ISF18S5NC48-M12

* Messing, PTFE-beschichtet

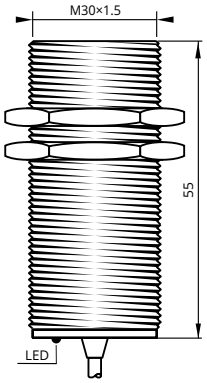
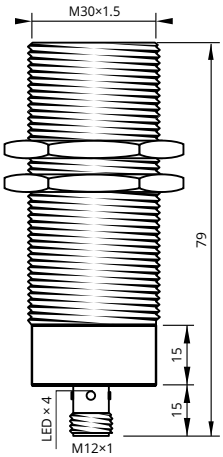
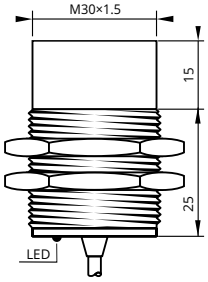
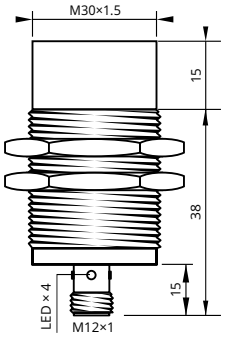
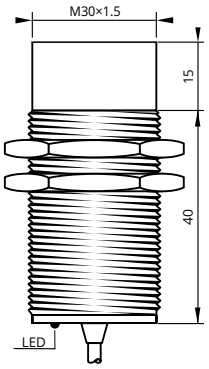
shielded bündig **M18×1 | 5 mm**	shielded bündig **M18×1 | 5 mm**	unshielded nicht bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 8 mm**
				
standard	standard	standard	standard	standard
				
5 mm	5 mm	8 mm	8 mm	8 mm
M18×1	M18×1	M18×1	M18×1	M18×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
750 Hz	750 Hz	500 Hz	500 Hz	500 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
PTFE	PTFE	PTFE	PTFE	PTFE
brass, PTFE coated*	brass, PTFE coated*	brass, PTFE coated*	brass, PTFE coated	brass, PTFE coated
PUR, ultra-flex	conn. M12 Stecker M12	PUR, ultra-flex	conn. M12 Stecker M12	PUR, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
ISF18S5PO55-A2P	ISF18S5PO79-M12	ISF18N8PO40-A2P	ISF18N8PO53-M12	ISF18N8PO55-A2P
ISF18S5PC55-A2P	ISF18S5PC79-M12	ISF18N8PC40-A2P	ISF18N8PC53-M12	ISF18N8PC55-A2P
ISF18S5NO55-A2P	ISF18S5NO79-M12	ISF18N8NO40-A2P	ISF18N8NO53-M12	ISF18N8NO55-A2P
ISF18S5NC55-A2P	ISF18S5NC79-M12	ISF18N8NC40-A2P	ISF18N8NC53-M12	ISF18N8NC55-A2P

Minor changes possible
Geringfügige Änderungen möglich

3-Wire Weld-Field Immune
3-Leiter Schweißfest

	unshielded nicht bündig **M18×1 | 8 mm**	shielded bündig **M30×1.5 | 10 mm**	shielded bündig **M30×1.5 | 10 mm**
			
	standard	standard	standard
			
Sensing Distance / Schaltabstand	8 mm	10 mm	10 mm
Housing Size / Gehäusegröße	M18×1	M30×1.5	M30×1.5
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching Frequency / Schaltfrequenz	500 Hz	220 Hz	220 Hz
Correction Factor / Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
Repeatability / Wiederholgenauigkeit	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
Hysteresis / Hysterese	3…15 %	3…15 %	3…15 %
Operating Temperature / Betriebstemperatur	–25…+75 °C	–25…+75 °C	–25…+75 °C
Protection Class / Schutzklasse	IP67	IP67	IP67
Sensing Face / Sensorfläche	PTFE	PTFE	PTFE
Housing Material / Gehäusewerkstoff	brass, PTFE coated*	brass, PTFE coated*	brass, PTFE coated*
Connection / Anschluss	conn. M12 Stecker M12	PUR, ultra-flex	conn. M12 Stecker M12
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	ISF18N8PO79-M12	ISF30S10PO35-A2P	ISF30S10PO48-M12
Article Code PNP, NC	ISF18N8PC79-M12	ISF30S10PC35-A2P	ISF30S10PC48-M12
Article Code NPN, NO	ISF18N8NO79-M12	ISF30S10NO35-A2P	ISF30S10NO48-M12
Article Code NPN, NC	ISF18N8NC79-M12	ISF30S10NC35-A2P	ISF30S10NC48-M12

* Messing, PTFE-beschichtet

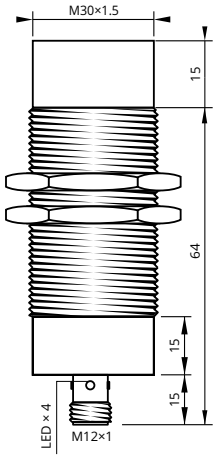
shielded bündig **M30×1.5 | 10 mm**	shielded bündig **M30×1.5 | 10 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**	unshielded nicht bündig **M30×1.5 | 15 mm**
				
standard	standard	standard	standard	standard
				
10 mm	10 mm	15 mm	15 mm	15 mm
M30×1.5	M30×1.5	M30×1.5	M30×1.5	M30×1.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
220 Hz	220 Hz	220 Hz	220 Hz	220 Hz
Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85	Alu 0.45 · Brs 0.50 · VA 0.85
<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)	<1 % (S_n)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C	–25…+75 °C
IP67	IP67	IP67	IP67	IP67
PTFE	PTFE	PTFE	PTFE	PTFE
brass, PTFE coated*	brass, PTFE coated*	brass, PTFE coated*	brass, PTFE coated*	brass, PTFE coated*
PUR, ultra-flex	conn. M12 Stecker M12	PUR, ultra-flex	conn. M12 Stecker M12	PUR, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
ISF30S10PO55-A2P	ISF30S10PO79-M12	ISF30N15PO40-A2P	ISF30N15PO53-M12	ISF30N15PO55-A2P
ISF30S10PC55-A2P	ISF30S10PC79-M12	ISF30N15PC40-A2P	ISF30N15PC53-M12	ISF30N15PC55-A2P
ISF30S10NO55-A2P	ISF30S10NO79-M12	ISF30N15NO40-A2P	ISF30N15NO53-M12	ISF30N15NO55-A2P
ISF30S10NC55-A2P	ISF30S10NC79-M12	ISF30N15NC40-A2P	ISF30N15NC53-M12	ISF30N15NC55-A2P

Minor changes possible
Geringfügige Änderungen möglich

unshielded
nicht bündig
M30×1.5 | 15 mm

3-Wire Weld-Field Immune
3-Leiter Schweißfest

standard

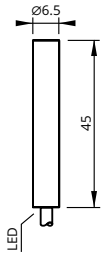
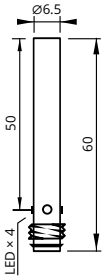
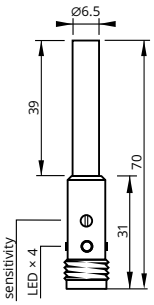


Sensing Distance	Schaltabstand	15 mm	
Housing Size	Gehäusegröße	M30×1.5	
Operating Voltage	Betriebsspannung	10…30 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert
Current Consumption	Stromverbrauch	<8 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in	integriert
Voltage Drop	Spannungsabfall	<1.5 V @ 200 mA	
Switching Frequency	Schaltfrequenz	220 Hz	
Correction Factor	Korrekturfaktor	Alu 0.45 · Brs 0.50 · VA 0.85	
Repeatability	Wiederholgenauigkeit	<1 % (S_n)	
Hysteresis	Hysterese	3…15 %	
Operating Temperature	Betriebstemperatur	–25…+75 °C	
Protection Class	Schutzklasse	IP67	
Sensing Face	Sensorfläche	PTFE	
Housing Material	Gehäusewerkstoff	brass, PTFE coated*	
Connection	Anschluss	conn. M12	Stecker M12
Switching Indicator	Schaltanzeige	built-in	integriert
Article Code PNP, NO	⎍	ISF30N15PO79-M12	
Article Code PNP, NC	⎍	ISF30N15PC79-M12	
Article Code NPN, NO	⎍	ISF30N15NO79-M12	
Article Code NPN, NC	⎍	ISF30N15NC79-M12	

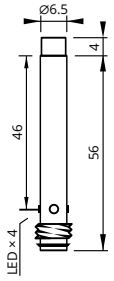
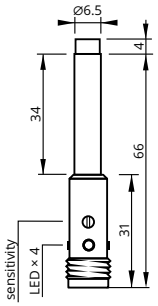
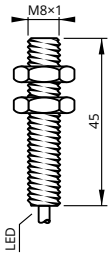
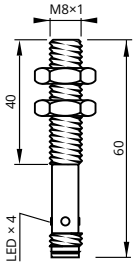
* Messing, PTFE-beschichtet

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

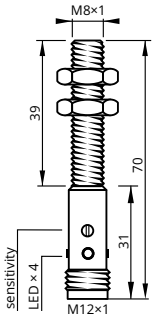
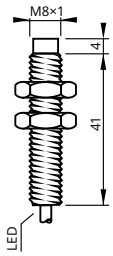
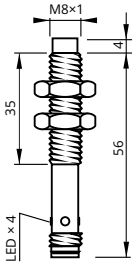
shielded bündig **Ø 6.5 mm | 2 mm**	shielded bündig **Ø 6.5 mm | 2 mm**	shielded bündig **Ø 6.5 mm | 2 mm**
		
increased erhöht	increased erhöht	increased erhöht
		

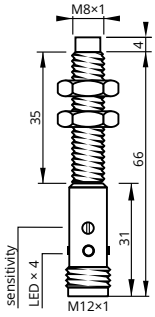
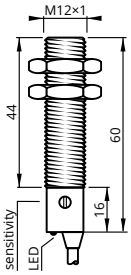
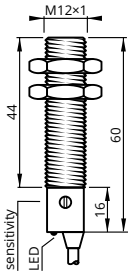
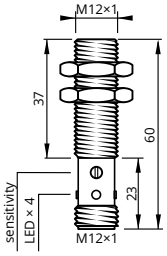
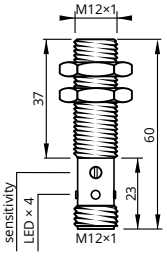
Sensing Distance	Schaltabstand	2 mm		2 mm		2 mm	
Housing Size	Gehäusegröße	Ø 6.5 mm		Ø 6.5 mm		Ø 6.5 mm	
Operating Voltage	Betriebsspannung	10…30 V_{DC}		10…30 V_{DC}		10…30 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert	built-in	integriert	built-in	integriert
Current Consumption	Stromverbrauch	<9 mA		<9 mA		<9 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA		200 mA		200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in	integriert	built-in	integriert	built-in	integriert
Voltage Drop	Spannungsabfall	<2 V @ 200 mA		<2 V @ 200 mA		<2 V @ 200 mA	
Switching Frequency	Schaltfrequenz	100 Hz		100 Hz		100 Hz	
Adjustment	Einstellung					multi turn pot.	Mehrgangpoti
Repeatibility	Wiederholgenauigkeit	<4 % (S_n)		<4 % (S_n)		<4 % (S_n)	
Hysteresis	Hysterese	8…15 %		8…15 %		8…15 %	
Operating Temperature	Betriebstemperatur	–25…+70 °C		–25…+70 °C		–25…+70 °C	
Protection Class	Schutzklasse	IP 67		IP 67		IP 67	
Sensing Face	Sensorfläche	POM		POM		POM	
Housing Material	Gehäusewerkstoff	SS303	Edelstahl	SS303	Edelstahl	SS303	Edelstahl
Connection	Anschluss	PVC, ultra-flex		conn. M8	Stecker M8	conn. M12	Stecker M12
Switching Indicator	Schaltanzeige	built-in	integriert	built-in	integriert	built-in	integriert
Article Code PNP, NO	⎍⎍	CNSD6S2PO45-A2P		CNSD6S2PO60-M8		CNSD6S2PO70-M12	
Article Code PNP, NC	⎍⎌	CNSD6S2PC45-A2P		CNSD6S2PC60-M8		CNSD6S2PC70-M12	
Article Code PNP, NO+NC	⎍⎍ + ⎍⎌						
Article Code NPN, NO	⎍⎍	CNSD6S2NO45-A2P		CNSD6S2NO60-M8		CNSD6S2NO70-M12	
Article Code NPN, NC	⎍⎌	CNSD6S2NC45-A2P		CNSD6S2NC60-M8		CNSD6S2NC70-M12	
Article Code NPN, NO+NC	⎍⎍ + ⎍⎌						

unshielded nicht bündig **Ø 6.5 mm | 4 mm**	unshielded nicht bündig **Ø 6.5 mm | 4 mm**	unshielded nicht bündig **Ø 6.5 mm | 4 mm**	shielded bündig **M8×1 | 2 mm**	shielded bündig **M8×1 | 2 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				
4 mm	4 mm	4 mm	2 mm	2 mm
Ø 6.5 mm	Ø 6.5 mm	Ø 6.5 mm	M8×1	M8×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<9 mA	<9 mA	<9 mA	<9 mA	<9 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
		multi turn pot. Mehrgangpoti		
<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C
IP 67	IP 67	IP 67	IP 67	IP 67
POM	POM	POM	POM	POM
SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
PVC, ultra-flex	conn. M8 Stecker M8	conn. M12 Stecker M12	PVC, ultra-flex	conn. M8 Stecker M8
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
CNSD6N4PO45-A2P	CNSD6N4PO60-M8	CNSD6N4PO70-M12	CNS8S2PO45-A2P	CNS8S2PO60-M8
CNSD6N4PC45-A2P	CNSD6N4PC60-M8	CNSD6N4PC70-M12	CNS8S2PC45-A2P	CNS8S2PC60-M8
CNSD6N4NO45-A2P	CNSD6N4NO60-M8	CNSD6N4NO70-M12	CNS8S2NO45-A2P	CNS8S2NO60-M8
CNSD6N4NC45-A2P	CNSD6N4NC60-M8	CNSD6N4NC70-M12	CNS8S2NC45-A2P	CNS8S2NC60-M8

Minor changes possible
Geringfügige Änderungen möglich

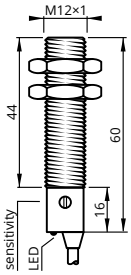
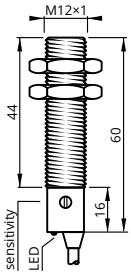
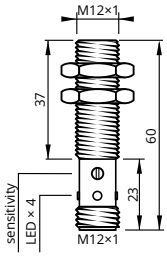
3-Wire
3-Leiter

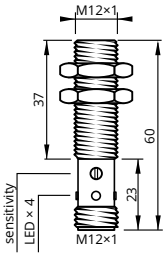
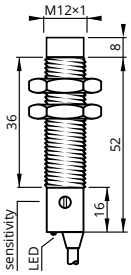
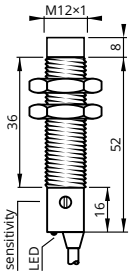
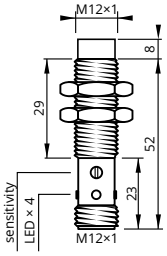
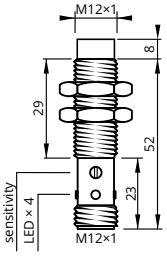
	shielded bündig **M8×1 | 2 mm**	unshielded nicht bündig **M8×1 | 4 mm**	unshielded nicht bündig **M8×1 | 4 mm**
			
	increased erhöht	increased erhöht	increased erhöht
			
Sensing Distance / Schaltabstand	2 mm	4 mm	4 mm
Housing Size / Gehäusegröße	M8×1	M8×1	M8×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<9 mA	<9 mA	<9 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
Switching Frequency / Schaltfrequenz	100 Hz	100 Hz	100 Hz
Adjustment / Einstellung	multi turn pot. Mehrgangpoti		
Repeatability / Wiederholgenauigkeit	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
Hysteresis / Hysterese	8…15 %	8…15 %	8…15 %
Operating Temperature / Betriebstemperatur	–25…+70 °C	–25…+70 °C	–25…+70 °C
Protection Class / Schutzklasse	IP 67	IP 67	IP 67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	SS303 Edelstahl	SS303 Edelstahl	SS303 Edelstahl
Connection / Anschluss	conn. M12 Stecker M12	PVC, ultra-flex	conn. M8 Stecker M8
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	CNS8S2PO70-M12	CNS8N4PO45-A2P	CNS8N4PO60-M8
Article Code PNP, NC	CNS8S2PC70-M12	CNS8N4PC45-A2P	CNS8N4PC60-M8
Article Code PNP, NO+NC			
Article Code NPN, NO	CNS8S2NO70-M12	CNS8N4NO45-A2P	CNS8N4NO60-M8
Article Code NPN, NC	CNS8S2NC70-M12	CNS8N4NC45-A2P	CNS8N4NC60-M8
Article Code NPN, NO+NC			

unshielded nicht bündig **M8×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				
4 mm	4 mm	4 mm	4 mm	4 mm
M8×1	M12×1	M12×1	M12×1	M12×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<9 mA	<9 mA	<9 mA	<9 mA	<9 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C
IP 67	IP 67	IP 67	IP 67	IP 67
POM	POM	POM	POM	POM
SS303 Edelstahl	brass Messing	PBT	brass Messing	PBT
conn. M12 Stecker M12	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
CNS8N4PO70-M12	CNS12S4PO60-A2P	CNS12S4PO60P-A2P	CNS12S4PO60-M12	CNS12S4PO60P-M12
CNS8N4PC70-M12	CNS12S4PC60-A2P	CNS12S4PC60P-A2P	CNS12S4PC60-M12	CNS12S4PC60P-M12
CNS8N4NO70-M12	CNS12S4NO60-A2P	CNS12S4NO60P-A2P	CNS12S4NO60-M12	CNS12S4NO60P-M12
CNS8N4NC70-M12	CNS12S4NC60-A2P	CNS12S4NC60P-A2P	CNS12S4NC60-M12	CNS12S4NC60P-M12

Minor changes possible
Geringfügige Änderungen möglich

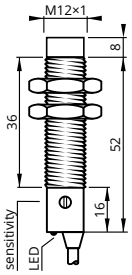
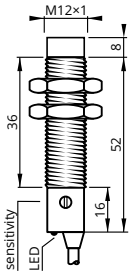
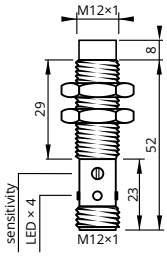
3-Wire
3-Leiter

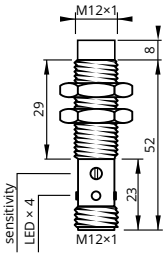
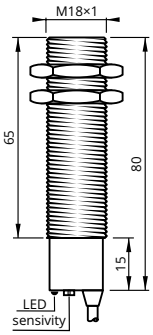
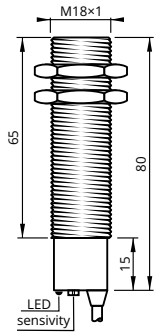
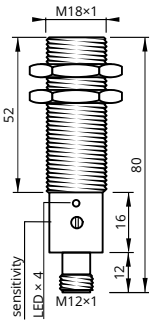
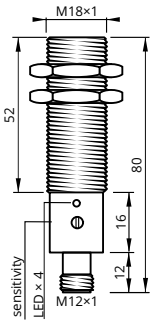
	shielded bündig **M12×1 | 6 mm**	shielded bündig **M12×1 | 6 mm**	shielded bündig **M12×1 | 6 mm**
			
	extended erweitert	extended erweitert	extended erweitert
			
Sensing Distance	Schaltabstand	6 mm	6 mm	6 mm
Housing Size	Gehäusegröße	M12×1	M12×1	M12×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<9 mA	<9 mA	<9 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
Switching Frequency	Schaltfrequenz	100 Hz	100 Hz	100 Hz
Adjustment	Einstellung	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
Repeatability	Wiederholgenauigkeit	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
Hysteresis	Hysterese	8…15 %	8…15 %	8…15 %
Operating Temperature	Betriebstemperatur	–25…+70 °C	–25…+70 °C	–25…+70 °C
Protection Class	Schutzklasse	IP 67	IP 67	IP 67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	brass Messing	PBT	brass Messing
Connection	Anschluss	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	CNS12S6PO60-A2P	CNS12S6PO60P-A2P	CNS12S6PO60-M12
Article Code PNP, NC	⎌	CNS12S6PC60-A2P	CNS12S6PC60P-A2P	CNS12S6PC60-M12
Article Code PNP, NO+NC	⎍ + ⎌			
Article Code NPN, NO	⎍	CNS12S6NO60-A2P	CNS12S6NO60P-A2P	CNS12S6NO60-M12
Article Code NPN, NC	⎌	CNS12S6NC60-A2P	CNS12S6NC60P-A2P	CNS12S6NC60-M12
Article Code NPN, NO+NC	⎍ + ⎌			

shielded bündig **M12×1 | 6 mm**	unshielded nicht bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 8 mm**
				
extended erweitert	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				
6 mm	8 mm	8 mm	8 mm	8 mm
M12×1	M12×1	M12×1	M12×1	M12×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<9 mA	<9 mA	<9 mA	<9 mA	<9 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C
IP 67	IP 67	IP 67	IP 67	IP 67
POM	POM	POM	POM	POM
PBT	brass Messing	PBT	brass Messing	PBT
conn. M12 Stecker M12	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
CNS12S6PO60P-M12	CNS12N8PO60-A2P	CNS12N8PO60P-A2P	CNS12N8PO60-M12	CNS12N8PO60P-M12
CNS12S6PC60P-M12	CNS12N8PC60-A2P	CNS12N8PC60P-A2P	CNS12N8PC60-M12	CNS12N8PC60P-M12
CNS12S6NO60P-M12	CNS12N8NO60-A2P	CNS12N8NO60P-A2P	CNS12N8NO60-M12	CNS12N8NO60P-M12
CNS12S6NC60P-M12	CNS12N8NC60-A2P	CNS12N8NC60P-A2P	CNS12N8NC60-M12	CNS12N8NC60P-M12

Minor changes possible
Geringfügige Änderungen möglich

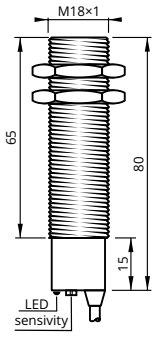
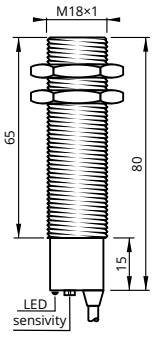
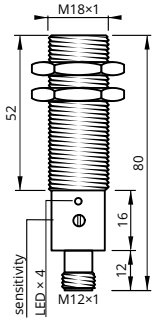
3-Wire
3-Leiter

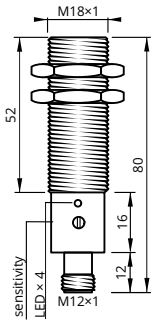
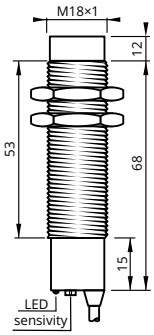
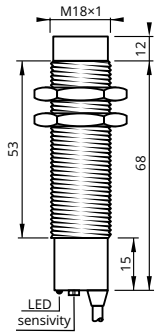
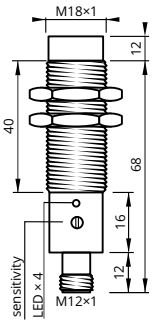
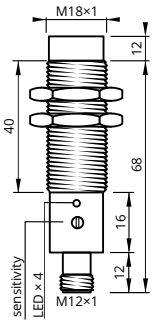
	unshielded nicht bündig **M12×1 | 10 mm**	unshielded nicht bündig **M12×1 | 10 mm**	unshielded nicht bündig **M12×1 | 10 mm**
			
	extended erweitert	extended erweitert	extended erweitert
			
Sensing Distance / Schaltabstand	10 mm	10 mm	10 mm
Housing Size / Gehäusegröße	M12×1	M12×1	M12×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<9 mA	<9 mA	<9 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
Switching Frequency / Schaltfrequenz	100 Hz	100 Hz	100 Hz
Adjustment / Einstellung	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
Repeatability / Wiederholgenauigkeit	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
Hysteresis / Hysterese	8…15 %	8…15 %	8…15 %
Operating Temperature / Betriebstemperatur	–25…+70 °C	–25…+70 °C	–25…+70 °C
Protection Class / Schutzklasse	IP 67	IP 67	IP 67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass Messing	PBT	brass Messing
Connection / Anschluss	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO / —/—	CNS12N10PO60-A2P	CNS12N10PO60P-A2P	CNS12N10PO60-M12
Article Code PNP, NC / —\—	CNS12N10PC60-A2P	CNS12N10PC60P-A2P	CNS12N10PC60-M12
Article Code PNP, NO+NC / —/— + —\—			
Article Code NPN, NO / —/—	CNS12N10NO60-A2P	CNS12N10NO60P-A2P	CNS12N10NO60-M12
Article Code NPN, NC / —\—	CNS12N10NC60-A2P	CNS12N10NC60P-A2P	CNS12N10NC60-M12
Article Code NPN, NO+NC / —/— + —\—			

unshielded nicht bündig **M12×1 | 10 mm**	shielded bündig **M18×1 | 8 mm**	shielded bündig **M18×1 | 8 mm**	shielded bündig **M18×1 | 8 mm**	shielded bündig **M18×1 | 8 mm**
				
extended erweitert	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				
10 mm	8 mm	8 mm	8 mm	8 mm
M12×1	M18×1	M18×1	M18×1	M18×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<9 mA	<9 mA	<9 mA	<9 mA	<9 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C
IP 67	IP 67	IP 67	IP 67	IP 67
POM	POM	POM	POM	POM
PBT	brass Messing	PBT	brass Messing	PBT
conn. M12 Stecker M12	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
CNS12N10PO60P-M12	CNS18S8PO80-A2P	CNS18S8PO80P-A2P	CNS18S8PO80-M12	CNS18S8PO80P-M12
CNS12N10PC60P-M12	CNS18S8PC80-A2P	CNS18S8PC80P-A2P	CNS18S8PC80-M12	CNS18S8PC80P-M12
CNS12N10NO60P-M12	CNS18S8NO80-A2P	CNS18S8NO80P-A2P	CNS18S8NO80-M12	CNS18S8NO80P-M12
CNS12N10NC60P-M12	CNS18S8NC80-A2P	CNS18S8NC80P-A2P	CNS18S8NC80-M12	CNS18S8NC80P-M12

Minor changes possible
Geringfügige Änderungen möglich

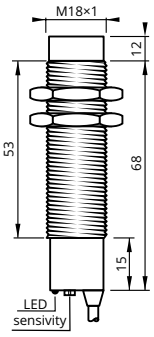
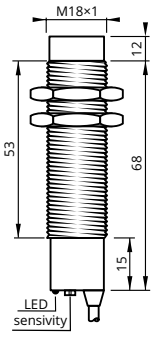
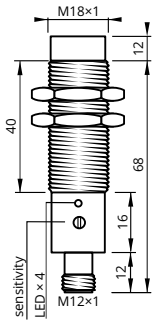
3-Wire
3-Leiter

	shielded bündig **M18×1 | 12 mm**	shielded bündig **M18×1 | 12 mm**	shielded bündig **M18×1 | 12 mm**
			
	extended erweitert	extended erweitert	extended erweitert
			
Sensing Distance	Schaltabstand	12 mm	12 mm	12 mm
Housing Size	Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<9 mA	<9 mA	<9 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
Switching Frequency	Schaltfrequenz	100 Hz	100 Hz	100 Hz
Adjustment	Einstellung	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
Repeatability	Wiederholgenauigkeit	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
Hysteresis	Hysterese	8…15 %	8…15 %	8…15 %
Operating Temperature	Betriebstemperatur	–25…+70 °C	–25…+70 °C	–25…+70 °C
Protection Class	Schutzklasse	IP 67	IP 67	IP 67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	brass Messing	PBT	brass Messing
Connection	Anschluss	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	CNS18S12PO80-A2P	CNS18S12PO80P-A2P	CNS18S12PO80-M12
Article Code PNP, NC	⎎	CNS18S12PC80-A2P	CNS18S12PC80P-A2P	CNS18S12PC80-M12
Article Code PNP, NO+NC	⎍ + ⎎			
Article Code NPN, NO	⎍	CNS18S12NO80-A2P	CNS18S12NO80P-A2P	CNS18S12NO80-M12
Article Code NPN, NC	⎎	CNS18S12NC80-A2P	CNS18S12NC80P-A2P	CNS18S12NC80-M12
Article Code NPN, NO+NC	⎍ + ⎎			

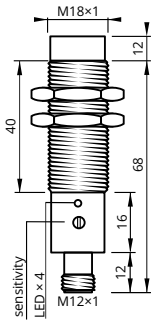
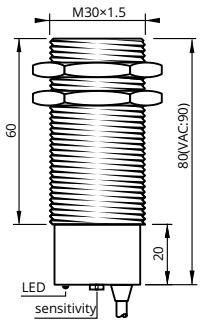
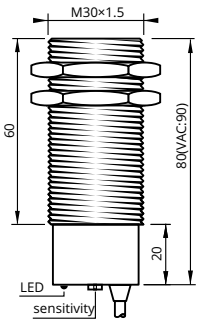
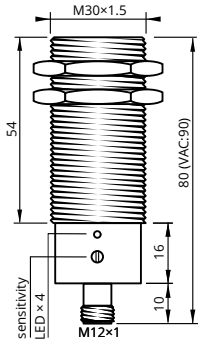
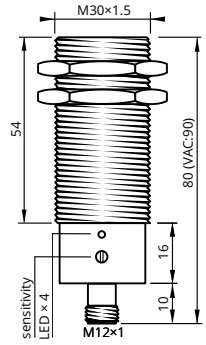
shielded bündig **M18×1 | 12 mm**	unshielded nicht bündig **M18×1 | 15 mm**	unshielded nicht bündig **M18×1 | 15 mm**	unshielded nicht bündig **M18×1 | 15 mm**	unshielded nicht bündig **M18×1 | 15 mm**
				
extended erweitert	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				
12 mm	15 mm	15 mm	15 mm	15 mm
M18×1	M18×1	M18×1	M18×1	M18×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<9 mA	<9 mA	<9 mA	<9 mA	<9 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C
IP 67	IP 67	IP 67	IP 67	IP 67
POM	POM	POM	POM	POM
PBT	brass Messing	PBT	brass Messing	PBT
conn. M12 Stecker M12	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
CNS18S12PO80P-M12	CNS18N15PO80-A2P	CNS18N15PO80P-A2P	CNS18N15PO80-M12	CNS18N15PO80P-M12
CNS18S12PC80P-M12	CNS18N15PC80-A2P	CNS18N15PC80P-A2P	CNS18N15PC80-M12	CNS18N15PC80P-M12
CNS18S12NO80P-M12	CNS18N15NO80-A2P	CNS18N15NO80P-A2P	CNS18N15NO80-M12	CNS18N15NO80P-M12
CNS18S12NC80P-M12	CNS18N15NC80-A2P	CNS18N15NC80P-A2P	CNS18N15NC80-M12	CNS18N15NC80P-M12

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

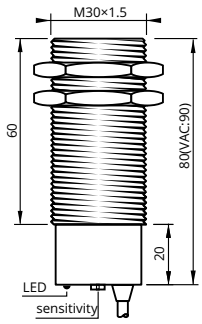
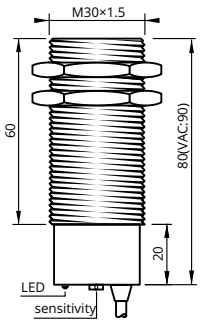
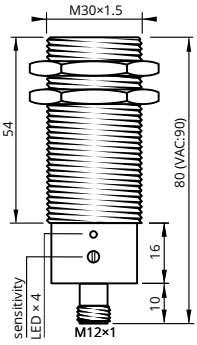
unshielded nicht bündig **M18×1 | 20 mm**	unshielded nicht bündig **M18×1 | 20 mm**	unshielded nicht bündig **M18×1 | 20 mm**
		
extended erweitert	extended erweitert	extended erweitert
		

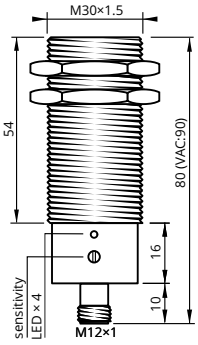
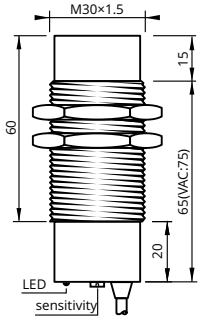
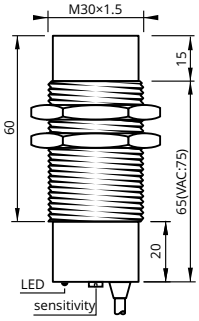
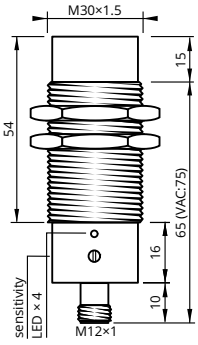
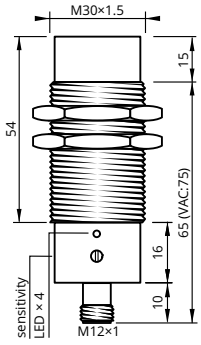
Sensing Distance	Schaltabstand	20 mm	20 mm	20 mm
Housing Size	Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<9 mA	<9 mA	<9 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
Switching Frequency	Schaltfrequenz	100 Hz	100 Hz	100 Hz
Adjustment	Einstellung	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
Repeatibility	Wiederholgenauigkeit	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
Hysteresis	Hysterese	8…15 %	8…15 %	8…15 %
Operating Temperature	Betriebstemperatur	–25…+70 °C	–25…+70 °C	–25…+70 °C
Protection Class	Schutzklasse	IP 67	IP 67	IP 67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	brass Messing	PBT	brass Messing
Connection	Anschluss	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	⎍	CNS18N20PO80-A2P	CNS18N20PO80P-A2P	CNS18N20PO80-M12
Article Code PNP, NC	⎌	CNS18N20PC80-A2P	CNS18N20PC80P-A2P	CNS18N20PC80-M12
Article Code PNP, NO+NC	⎍ + ⎌			
Article Code NPN, NO	⎍	CNS18N20NO80-A2P	CNS18N20NO80P-A2P	CNS18N20NO80-M12
Article Code NPN, NC	⎌	CNS18N20NC80-A2P	CNS18N20NC80P-A2P	CNS18N20NC80-M12
Article Code NPN, NO+NC	⎍ + ⎌			

unshielded nicht bündig **M18×1 | 20 mm**	shielded bündig **M30×1.5 | 20 mm**	shielded bündig **M30×1.5 | 20 mm**	shielded bündig **M30×1.5 | 20 mm**	shielded bündig **M30×1.5 | 20 mm**
				
extended erweitert	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				
20 mm	20 mm	20 mm	20 mm	20 mm
M18×1	M30×1.5	M30×1.5	M30×1.5	M30×1.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<9 mA	<9 mA	<9 mA	<9 mA	<9 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C
IP 67	IP 67	IP 67	IP 67	IP 67
POM	POM	POM	POM	POM
PBT	brass Messing	PBT	brass Messing	PBT
conn. M12 Stecker M12	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
CNS18N20PO80P-M12	CNS30S20PO80-A2P	CNS30S20PO80P-A2P	CNS30S20PO80-M12	CNS30S20PO80P-M12
CNS18N20PC80P-M12	CNS30S20PC80-A2P	CNS30S20PC80P-A2P	CNS30S20PC80-M12	CNS30S20PC80P-M12
CNS18N20NO80P-M12	CNS30S20NO80-A2P	CNS30S20NO80P-A2P	CNS30S20NO80-M12	CNS30S20NO80P-M12
CNS18N20NC80P-M12	CNS30S20NC80-A2P	CNS30S20NC80P-A2P	CNS30S20NC80-M12	CNS30S20NC80P-M12

Minor changes possible
Geringfügige Änderungen möglich

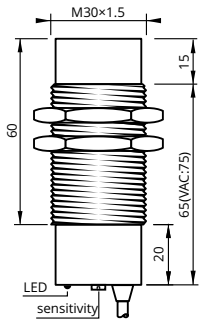
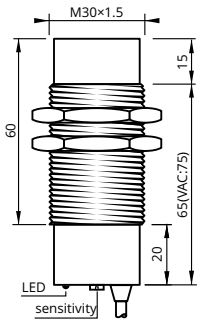
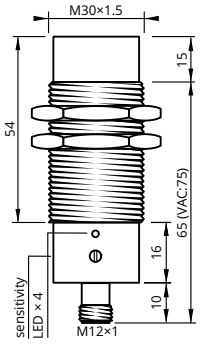
3-Wire
3-Leiter

	shielded bündig **M30×1.5 | 25 mm**	shielded bündig **M30×1.5 | 25 mm**	shielded bündig **M30×1.5 | 25 mm**
			
	extended erweitert	extended erweitert	extended erweitert
			
Sensing Distance / Schaltabstand	25 mm	25 mm	25 mm
Housing Size / Gehäusegröße	M30×1.5	M30×1.5	M30×1.5
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<9 mA	<9 mA	<9 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
Switching Frequency / Schaltfrequenz	100 Hz	100 Hz	100 Hz
Adjustment / Einstellung	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
Repeatability / Wiederholgenauigkeit	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
Hysteresis / Hysterese	8…15 %	8…15 %	8…15 %
Operating Temperature / Betriebstemperatur	–25…+70 °C	–25…+70 °C	–25…+70 °C
Protection Class / Schutzklasse	IP 67	IP 67	IP 67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass Messing	PBT	brass Messing
Connection / Anschluss	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	CNS30S25PO80-A2P	CNS30S25PO80P-A2P	CNS30S25PO80-M12
Article Code PNP, NC	CNS30S25PC80-A2P	CNS30S25PC80P-A2P	CNS30S25PC80-M12
Article Code PNP, NO+NC			
Article Code NPN, NO	CNS30S25NO80-A2P	CNS30S25NO80P-A2P	CNS30S25NO80-M12
Article Code NPN, NC	CNS30S25NC80-A2P	CNS30S25NC80P-A2P	CNS30S25NC80-M12
Article Code NPN, NO+NC			

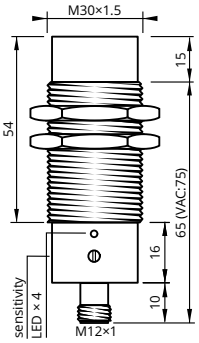
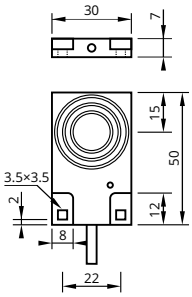
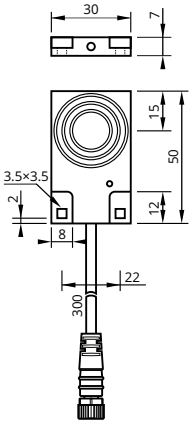
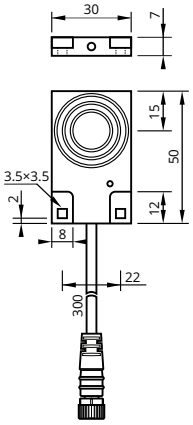
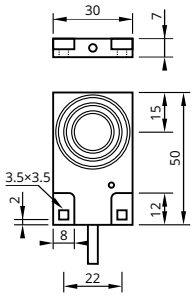
shielded bündig **M30×1.5 | 25 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**
				
extended erweitert	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				
25 mm	30 mm	30 mm	30 mm	30 mm
M30×1.5	M30×1.5	M30×1.5	M30×1.5	M30×1.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<9 mA	<9 mA	<9 mA	<9 mA	<9 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C
IP 67	IP 67	IP 67	IP 67	IP 67
POM	POM	POM	POM	POM
PBT	brass Messing	PBT	brass Messing	PBT
conn. M12 Stecker M12	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
CNS30S25PO80P-M12	CNS30N30PO80-A2P	CNS30N30PO80P-A2P	CNS30N30PO80-M12	CNS30N30PO80P-M12
CNS30S25PC80P-M12	CNS30N30PC80-A2P	CNS30N30PC80P-A2P	CNS30N30PC80-M12	CNS30N30PC80P-M12
CNS30S25NO80P-M12	CNS30N30NO80-A2P	CNS30N30NO80P-A2P	CNS30N30NO80-M12	CNS30N30NO80P-M12
CNS30S25NC80P-M12	CNS30N30NC80-A2P	CNS30N30NC80P-A2P	CNS30N30NC80-M12	CNS30N30NC80P-M12

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

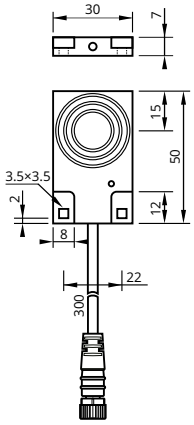
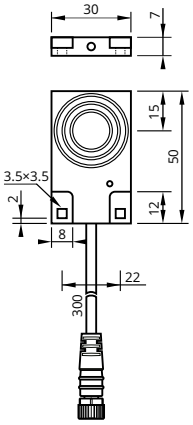
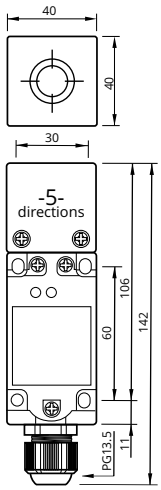
	unshielded nicht bündig **M30×1.5 | 35 mm**	unshielded nicht bündig **M30×1.5 | 35 mm**	unshielded nicht bündig **M30×1.5 | 35 mm**
			
	extended erweitert	increased erhöht	increased erhöht
			

Sensing Distance	Schaltabstand	35 mm		35 mm		35 mm	
Housing Size	Gehäusegröße	M30×1.5		M30×1.5		M30×1.5	
Operating Voltage	Betriebsspannung	10…30 V_{DC}		10…30 V_{DC}		10…30 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert	built-in	integriert	built-in	integriert
Current Consumption	Stromverbrauch	<9 mA		<9 mA		<9 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA		200 mA		200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in	integriert	built-in	integriert	built-in	integriert
Voltage Drop	Spannungsabfall	<2 V @ 200 mA		<2 V @ 200 mA		<2 V @ 200 mA	
Switching Frequency	Schaltfrequenz	100 Hz		100 Hz		100 Hz	
Adjustment	Einstellung	multi turn pot.	Mehrgangpoti	multi turn pot.	Mehrgangpoti	multi turn pot.	Mehrgangpoti
Repeatibility	Wiederholgenauigkeit	<4 % (S_n)		<4 % (S_n)		<4 % (S_n)	
Hysteresis	Hysterese	8…15 %		8…15 %		8…15 %	
Operating Temperature	Betriebstemperatur	–25…+70 °C		–25…+70 °C		–25…+70 °C	
Protection Class	Schutzklasse	IP 67		IP 67		IP 67	
Sensing Face	Sensorfläche	POM		POM		POM	
Housing Material	Gehäusewerkstoff	brass	Messing	PBT		brass	Messing
Connection	Anschluss	PVC, ultra-flex		PVC, ultra-flex		conn. M12	Stecker M12
Switching Indicator	Schaltanzeige	built-in	integriert	built-in	integriert	built-in	integriert
Article Code PNP, NO	⎍	CNS30N35PO80-A2P		CNS30N35PO80P-A2P		CNS30N35PO80-M12	
Article Code PNP, NC	⎎	CNS30N35PC80-A2P		CNS30N35PC80P-A2P		CNS30N35PC80-M12	
Article Code PNP, NO+NC	⎍ + ⎎						
Article Code NPN, NO	⎍	CNS30N35NO80-A2P		CNS30N35NO80P-A2P		CNS30N35NO80-M12	
Article Code NPN, NC	⎎	CNS30N35NC80-A2P		CNS30N35NC80P-A2P		CNS30N35NC80-M12	
Article Code NPN, NO+NC	⎍ + ⎎						

unshielded nicht bündig **M30×1.5 | 35 mm**	shielded bündig **30×50 | 6 mm**	shielded bündig **30×50 | 6 mm**	shielded bündig **30×50 | 6 mm**	unshielded nicht bündig **30×50 | 10 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				
35 mm	6 mm	6 mm	6 mm	10 mm
M30×1.5	30×50	30×50	30×50	30×50
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<9 mA	<9 mA	<9 mA	<9 mA	<9 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C
IP 67	IP 67	IP 67	IP 67	IP 67
POM	POM	POM	POM	POM
PBT	PBT	PBT	PBT	PBT
conn. M12 Stecker M12	PVC, ultra-flex	PVC, ultra-flex	PUR, ultra-flex	PVC, ultra-flex
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
CNS30N35PO80P-M12	CNS3050S6PO7-A2P	CNS3050S6PO7-3P8	CNS3050S6PO7-3U8	CNS3050N10PO7-A2P
CNS30N35PC80P-M12	CNS3050S6PC7-A2P	CNS3050S6PC7-3P8	CNS3050S6PC7-3U8	CNS3050N10PC7-A2P
CNS30N35NO80P-M12	CNS3050S6NO7-A2P	CNS3050S6NO7-3P8	CNS3050S6NO7-3U8	CNS3050N10NO7-A2P
CNS30N35NC80P-M12	CNS3050S6NC7-A2P	CNS3050S6NC7-3P8	CNS3050S6NC7-3U8	CNS3050N10NC7-A2P

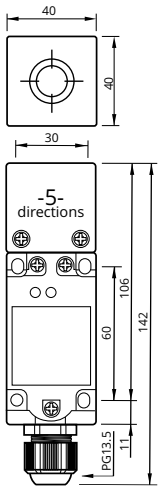
Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

	unshielded nicht bündig **30×50 | 10 mm**	unshielded nicht bündig **30×50 | 10 mm**	shielded bündig **40×40 mm | 20 mm**
			
	increased erhöht	increased erhöht	increased erhöht
			
Sensing Distance / Schaltabstand	10 mm	10 mm	20 mm
Housing Size / Gehäusegröße	30×50	30×50	40×40 mm
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<9 mA	<9 mA	<10 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
Switching Frequency / Schaltfrequenz	100 Hz	100 Hz	100 Hz
Adjustment / Einstellung	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
Repeatability / Wiederholgenauigkeit	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
Hysteresis / Hysterese	8…15 %	8…15 %	8…15 %
Operating Temperature / Betriebstemperatur	–25…+70 °C	–25…+70 °C	–25…+70 °C
Protection Class / Schutzklasse	IP 67	IP 67	IP 67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	PBT	PBT	PBT
Connection / Anschluss	PVC, ultra-flex	PUR, ultra-flex	terminal Klemme
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	—/—	CNS3050N10PO7-3P8	CNS3050N10PO7-3U8	CNS40S20POL-PG13
Article Code PNP, NC	—\—	CNS3050N10PC7-3P8	CNS3050N10PC7-3U8	CNS40S20PCL-PG13
Article Code PNP, NO+NC	—/— + —\—			CNS40S20PCOL-PG13
Article Code NPN, NO	—/—	CNS3050N10NO7-3P8	CNS3050N10NO7-3U8	CNS40S20NOL-PG13
Article Code NPN, NC	—\—	CNS3050N10NC7-3P8	CNS3050N10NC7-3U8	CNS40S20NCL-PG13
Article Code NPN, NO+NC	—/— + —\—			CNS40S20NCOL-PG13

unshielded
nicht bündig
40×40 mm | 30 mm

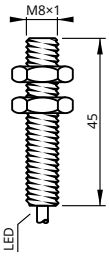
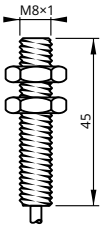
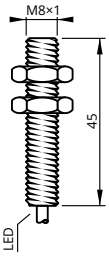
increased
erhöht



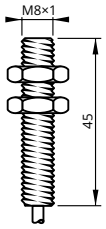
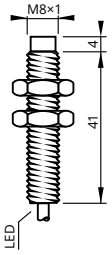
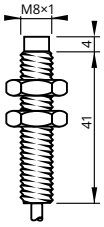
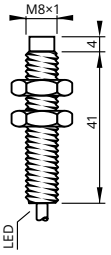
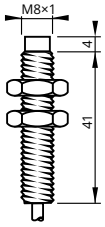
30 mm	
40×40 mm	
10…30 V_{DC}	
built-in	integriert
<10 mA	
200 mA	
built-in	integriert
<2 V @ 200 mA	
100 Hz	
multi turn pot.	Mehrgangpoti
<4 % (S_n)	
8…15 %	
–25…+70 °C	
IP 67	
POM	
PBT	
terminal	Klemme
built-in	integriert
CNS40N30POL-PG13	
CNS40N30PCL-PG13	
CNS40N30PCOL-PG13	
CNS40N30NOL-PG13	
CNS40N30NCL-PG13	
CNS40N30NCOL-PG13	

Minor changes possible
Geringfügige Änderungen möglich

3-Wire High Temperature
3-Leiter Hochtemperatur

	shielded bündig **M8×1 | 4 mm**	shielded bündig **M8×1 | 4 mm**	shielded bündig **M8×1 | 4 mm**
			
	standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F
			
Sensing Distance / Schaltabstand	4 mm	4 mm	4 mm
Max Temperature / Maximaltemperatur	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F
Housing Size / Gehäusegröße	M8×1	M8×1	M8×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
Switching Frequency / Schaltfrequenz	50 Hz	50 Hz	50 Hz
Adjustment / Einstellung			
Repeatability / Wiederholgenauigkeit	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)
Hysteresis / Hysterese	8…15 %	8…15 %	8…15 %
Operating Temperature / Betriebstemperatur	–25…+120 °C	–25…+120 °C	–25…+120 °C
Protection Class / Schutzklasse	IP 67	IP 67	IP 67
Sensing Face / Sensorfläche	PTFE	PTFE	PTFE
Housing Material / Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection / Anschluss	silicone Silikon	silicone Silikon	PTFE
Switching Indicator / Schaltanzeige	built-in* integriert*		built-in* integriert*
Article Code PNP, NO	CHH8S1APO45-A2S	CHH8S1APO45-N2S	CHH8S1APO45-A2T
Article Code PNP, NC	CHH8S1APC45-A2S	CHH8S1APC45-N2S	CHH8S1APC45-A2T
Article Code NPN, NO	CHH8S1ANO45-A2S	CHH8S1ANO45-N2S	CHH8S1ANO45-A2T
Article Code NPN, NC	CHH8S1ANC45-A2S	CHH8S1ANC45-N2S	CHH8S1ANC45-A2T

* Only for mechanical set-up. LED may die if operated beyond 120 °C (248 °F). The LED functionality is not covered by warranty.
* Nur zur mechanischen Einstellung. Die LED kann bei Temperaturen über 120 °C ausfallen. Keine Garantie auf die LED.

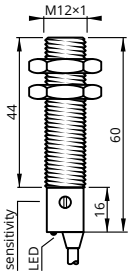
shielded bündig **M8×1 | 4 mm**	unshielded nicht bündig **M8×1 | 8 mm**	unshielded nicht bündig **M8×1 | 8 mm**	unshielded nicht bündig **M8×1 | 8 mm**	unshielded nicht bündig **M8×1 | 8 mm**
				
standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F
				
4 mm	8 mm	8 mm	8 mm	8 mm
120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F
M8×1	M8×1	M8×1	M8×1	M8×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
<10 % (S_n)	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+120 °C	–25…+120 °C	–25…+120 °C	–25…+120 °C	–25…+120 °C
IP 67	IP 67	IP 67	IP 67	IP 67
PTFE	PTFE	PTFE	PTFE	PTFE
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
PTFE	silicone Silikon	silicone Silikon	PTFE	PTFE
	built-in* integriert*		built-in* integriert*	
CHH8S1APO45-N2T	CHH8N2APO45-A2S	CHH8N2APO45-N2S	CHH8N2APO45-A2T	CHH8N2APO45-N2T
CHH8S1APC45-N2T	CHH8N2APC45-A2S	CHH8N2APC45-N2S	CHH8N2APC45-A2T	CHH8N2APC45-N2T
CHH8S1ANO45-N2T	CHH8N2ANO45-A2S	CHH8N2ANO45-N2S	CHH8N2ANO45-A2T	CHH8N2ANO45-N2T
CHH8S1ANC45-N2T	CHH8N2ANC45-A2S	CHH8N2ANC45-N2S	CHH8N2ANC45-A2T	CHH8N2ANC45-N2T

Minor changes possible
Geringfügige Änderungen möglich

3-Wire High Temperature
3-Leiter Hochtemperatur

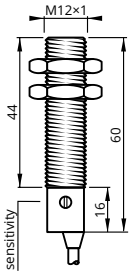
shielded
bündig
M12×1 | 4 mm

standard
120 °C · 248 °F



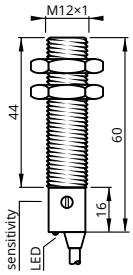
shielded
bündig
M12×1 | 4 mm

standard
120 °C · 248 °F



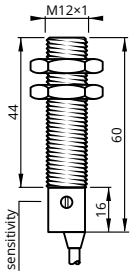
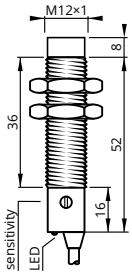
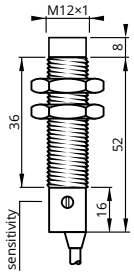
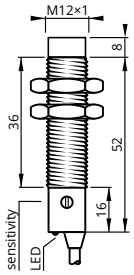
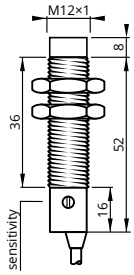
shielded
bündig
M12×1 | 4 mm

standard
120 °C · 248 °F



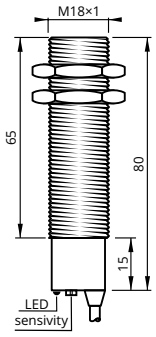
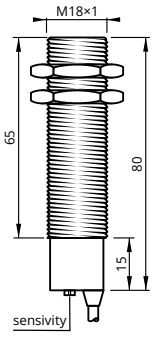
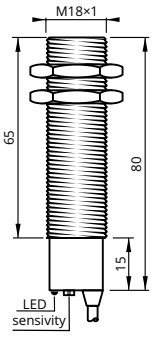
Sensing Distance	Schaltabstand	4 mm		4 mm		4 mm	
Max Temperature	Maximaltemperatur	120 °C · 248 °F		120 °C · 248 °F		120 °C · 248 °F	
Housing Size	Gehäusegröße	M12×1		M12×1		M12×1	
Operating Voltage	Betriebsspannung	10…30 V_{DC}		10…30 V_{DC}		10…30 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert	built-in	integriert	built-in	integriert
Current Consumption	Stromverbrauch	<8 mA		<8 mA		<8 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA		200 mA		200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in	integriert	built-in	integriert	built-in	integriert
Voltage Drop	Spannungsabfall	<2 V @ 200 mA		<2 V @ 200 mA		<2 V @ 200 mA	
Switching Frequency	Schaltfrequenz	50 Hz		50 Hz		50 Hz	
Adjustment	Einstellung	multi turn pot.	Mehrgangpoti	multi turn pot.	Mehrgangpoti	multi turn pot.	Mehrgangpoti
Repeatibility	Wiederholgenauigkeit	<10 % (S_n)		<10 % (S_n)		<10 % (S_n)	
Hysteresis	Hysterese	8…15 %		8…15 %		8…15 %	
Operating Temperature	Betriebstemperatur	–25…+120 °C		–25…+120 °C		–25…+120 °C	
Protection Class	Schutzklasse	IP 67		IP 67		IP 67	
Sensing Face	Sensorfläche	PTFE		PTFE		PTFE	
Housing Material	Gehäusewerkstoff	brass	Messing	brass	Messing	brass	Messing
Connection	Anschluss	silicone	Silikon	silicone	Silikon	PTFE	
Switching Indicator	Schaltanzeige	built-in*	integriert*			built-in*	integriert*
Article Code PNP, NO	⎍	CHH12S4APO60-A2S		CHH12S4APO60-N2S		CHH12S4APO60-A2T	
Article Code PNP, NC	⎍	CHH12S4APC60-A2S		CHH12S4APC60-N2S		CHH12S4APC60-A2T	
Article Code NPN, NO	⎍	CHH12S4ANO60-A2S		CHH12S4ANO60-N2S		CHH12S4ANO60-A2T	
Article Code NPN, NC	⎍	CHH12S4ANC60-A2S		CHH12S4ANC60-N2S		CHH12S4ANC60-A2T	

* Only for mechanical set-up. LED may die if operated beyond 120 °C (248 °F). The LED functionality is not covered by warranty.
* Nur zur mechanischen Einstellung. Die LED kann bei Temperaturen über 120 °C ausfallen. Keine Garantie auf die LED.

shielded bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 8 mm**
				
standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F
				
4 mm	8 mm	8 mm	8 mm	8 mm
120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F
M12×1	M12×1	M12×1	M12×1	M12×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
<10 % (S_n)	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+120 °C	–25…+120 °C	–25…+120 °C	–25…+120 °C	–25…+120 °C
IP 67	IP 67	IP 67	IP 67	IP 67
PTFE	PTFE	PTFE	PTFE	PTFE
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
PTFE	silicone Silikon	silicone Silikon	PTFE	PTFE
	built-in* integriert*		built-in* integriert*	
CHH12S4APO60-N2T	CHH12N8APO60-A2S	CHH12N8APO60-N2S	CHH12N8APO60-A2T	CHH12N8APO60-N2T
CHH12S4APC60-N2T	CHH12N8APC60-A2S	CHH12N8APC60-N2S	CHH12N8APC60-A2T	CHH12N8APC60-N2T
CHH12S4ANO60-N2T	CHH12N8ANO60-A2S	CHH12N8ANO60-N2S	CHH12N8ANO60-A2T	CHH12N8ANO60-N2T
CHH12S4ANC60-N2T	CHH12N8ANC60-A2S	CHH12N8ANC60-N2S	CHH12N8ANC60-A2T	CHH12N8ANC60-N2T

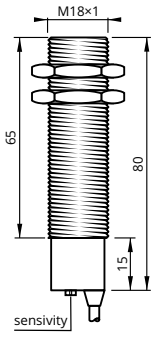
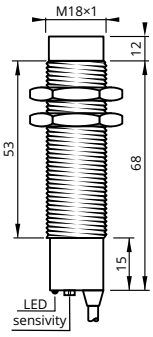
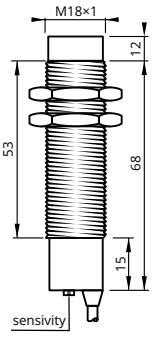
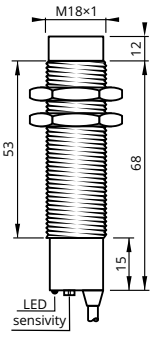
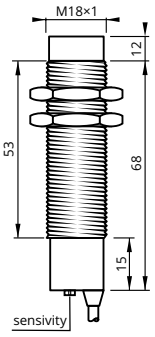
Minor changes possible
Geringfügige Änderungen möglich

3-Wire High Temperature
3-Leiter Hochtemperatur

	shielded bündig **M18×1 | 8 mm**	shielded bündig **M18×1 | 8 mm**	shielded bündig **M18×1 | 8 mm**
			
	standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F
			

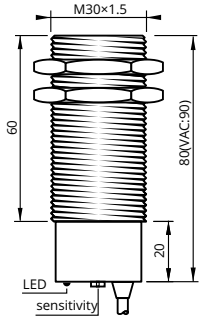
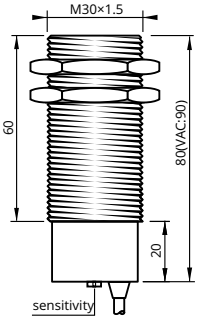
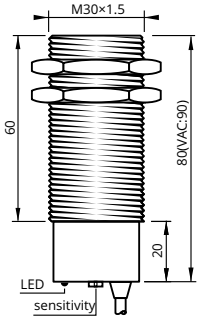
Sensing Distance	Schaltabstand	8 mm	8 mm	8 mm
Max Temperature	Maximaltemperatur	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F
Housing Size	Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
Switching Frequency	Schaltfrequenz	50 Hz	50 Hz	50 Hz
Adjustment	Einstellung	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
Repeatibility	Wiederholgenauigkeit	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)
Hysteresis	Hysterese	8…15 %	8…15 %	8…15 %
Operating Temperature	Betriebstemperatur	–25…+120 °C	–25…+120 °C	–25…+120 °C
Protection Class	Schutzklasse	IP 67	IP 67	IP 67
Sensing Face	Sensorfläche	PTFE	PTFE	PTFE
Housing Material	Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection	Anschluss	silicone Silikon	silicone Silikon	PTFE
Switching Indicator	Schaltanzeige	built-in* integriert*		built-in* integriert*
Article Code PNP, NO	⎍	CHH18S8APO80-A2S	CHH18S8APO80-N2S	CHH18S8APO80-A2T
Article Code PNP, NC	⎍	CHH18S8APC80-A2S	CHH18S8APC80-N2S	CHH18S8APC80-A2T
Article Code NPN, NO	⎍	CHH18S8ANO80-A2S	CHH18S8ANO80-N2S	CHH18S8ANO80-A2T
Article Code NPN, NC	⎍	CHH18S8ANC80-A2S	CHH18S8ANC80-N2S	CHH18S8ANC80-A2T

* Only for mechanical set-up. LED may die if operated beyond 120 °C (248 °F). The LED functionality is not covered by warranty.
* Nur zur mechanischen Einstellung. Die LED kann bei Temperaturen über 120 °C ausfallen. Keine Garantie auf die LED.

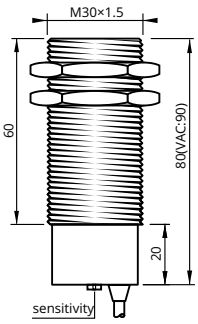
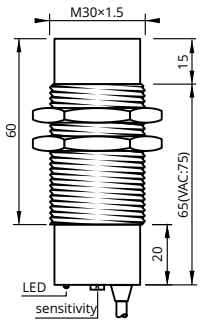
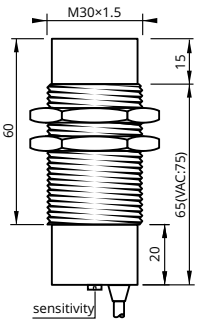
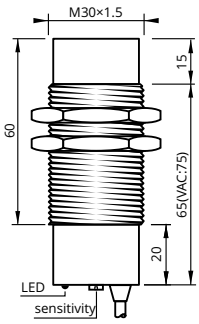
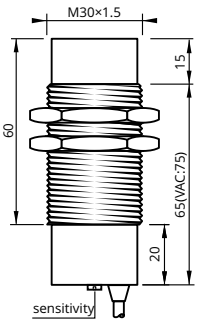
shielded bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 15 mm**	unshielded nicht bündig **M18×1 | 15 mm**	unshielded nicht bündig **M18×1 | 15 mm**	unshielded nicht bündig **M18×1 | 15 mm**
				
standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F
				
8 mm	15 mm	15 mm	15 mm	15 mm
120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F
M18×1	M18×1	M18×1	M18×1	M18×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
<10 % (S_n)	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+120 °C	–25…+120 °C	–25…+120 °C	–25…+120 °C	–25…+120 °C
IP 67	IP 67	IP 67	IP 67	IP 67
PTFE	PTFE	PTFE	PTFE	PTFE
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
PTFE	silicone Silikon	silicone Silikon	PTFE	PTFE
	built-in* integriert*		built-in* integriert*	
CHH18S8APO80-N2T	CHH18N15APO80-A2S	CHH18N15APO80-N2S	CHH18N15APO80-A2T	CHH18N15APO80-N2T
CHH18S8APC80-N2T	CHH18N15APC80-A2S	CHH18N15APC80-N2S	CHH18N15APC80-A2T	CHH18N15APC80-N2T
CHH18S8ANO80-N2T	CHH18N15ANO80-A2S	CHH18N15ANO80-N2S	CHH18N15ANO80-A2T	CHH18N15ANO80-N2T
CHH18S8ANC80-N2T	CHH18N15ANC80-A2S	CHH18N15ANC80-N2S	CHH18N15ANC80-A2T	CHH18N15ANC80-N2T

Minor changes possible
Geringfügige Änderungen möglich

3-Wire High Temperature
3-Leiter Hochtemperatur

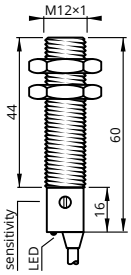
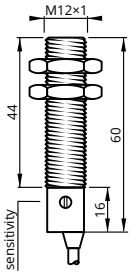
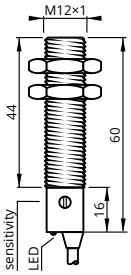
	shielded bündig **M30×1.5 | 20 mm**	shielded bündig **M30×1.5 | 20 mm**	shielded bündig **M30×1.5 | 20 mm**
			
	standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F
			
Sensing Distance	Schaltabstand	20 mm	20 mm	20 mm
Max Temperature	Maximaltemperatur	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F
Housing Size	Gehäusegröße	M30×1.5	M30×1.5	M30×1.5
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
Switching Frequency	Schaltfrequenz	50 Hz	50 Hz	50 Hz
Adjustment	Einstellung	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
Repeatibility	Wiederholgenauigkeit	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)
Hysteresis	Hysterese	8…15 %	8…15 %	8…15 %
Operating Temperature	Betriebstemperatur	–25…+120 °C	–25…+120 °C	–25…+120 °C
Protection Class	Schutzklasse	IP 67	IP 67	IP 67
Sensing Face	Sensorfläche	PTFE	PTFE	PTFE
Housing Material	Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection	Anschluss	silicone Silikon	silicone Silikon	PTFE
Switching Indicator	Schaltanzeige	built-in* integriert*		built-in* integriert*
Article Code PNP, NO	⎍	CHH30S20APO80-A2S	CHH30S20APO80-N2S	CHH30S20APO80-A2T
Article Code PNP, NC	⎍	CHH30S20APC80-A2S	CHH30S20APC80-N2S	CHH30S20APC80-A2T
Article Code NPN, NO	⎍	CHH30S20ANO80-A2S	CHH30S20ANO80-N2S	CHH30S20ANO80-A2T
Article Code NPN, NC	⎍	CHH30S20ANC80-A2S	CHH30S20ANC80-N2S	CHH30S20ANC80-A2T

* Only for mechanical set-up. LED may die if operated beyond 120 °C (248 °F). The LED functionality is not covered by warranty.
* Nur zur mechanischen Einstellung. Die LED kann bei Temperaturen über 120 °C ausfallen. Keine Garantie auf die LED.

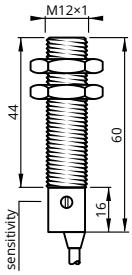
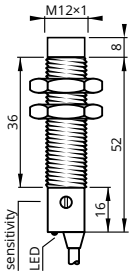
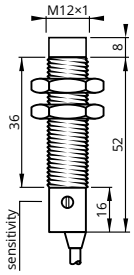
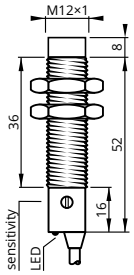
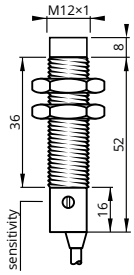
shielded bündig **M30×1.5 | 20 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**
				
standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F	standard 120 °C · 248 °F
				
20 mm	30 mm	30 mm	30 mm	30 mm
120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F	120 °C · 248 °F
M30×1.5	M30×1.5	M30×1.5	M30×1.5	M30×1.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
<10 % (S_n)	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+120 °C	–25…+120 °C	–25…+120 °C	–25…+120 °C	–25…+120 °C
IP 67	IP 67	IP 67	IP 67	IP 67
PTFE	PTFE	PTFE	PTFE	PTFE
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
PTFE	silicone Silikon	silicone Silikon	PTFE	PTFE
	built-in* integriert*		built-in* integriert*	
CHH30S20APO80-N2T	CHH30N30APO80-A2S	CHH30N30APO80-N2S	CHH30N30APO80-A2T	CHH30N30APO80-N2T
CHH30S20APC80-N2T	CHH30N30APC80-A2S	CHH30N30APC80-N2S	CHH30N30APC80-A2T	CHH30N30APC80-N2T
CHH30S20ANO80-N2T	CHH30N30ANO80-A2S	CHH30N30ANO80-N2S	CHH30N30ANO80-A2T	CHH30N30ANO80-N2T
CHH30S20ANC80-N2T	CHH30N30ANC80-A2S	CHH30N30ANC80-N2S	CHH30N30ANC80-A2T	CHH30N30ANC80-N2T

Minor changes possible
Geringfügige Änderungen möglich

3-Wire High Temperature
3-Leiter Hochtemperatur

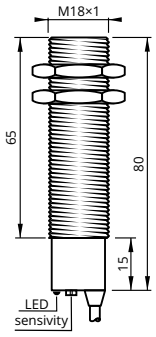
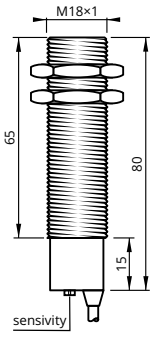
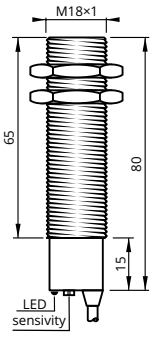
	shielded bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**	shielded bündig **M12×1 | 4 mm**
			
	standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F
			

Sensing Distance	Schaltabstand	4 mm		4 mm		4 mm	
Max Temperature	Maximaltemperatur	150 °C · 302 °F		150 °C · 302 °F		150 °C · 302 °F	
Housing Size	Gehäusegröße	M12×1		M12×1		M12×1	
Operating Voltage	Betriebsspannung	10…30 V_{DC}		10…30 V_{DC}		10…30 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert	built-in	integriert	built-in	integriert
Current Consumption	Stromverbrauch	<8 mA		<8 mA		<8 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA		200 mA		200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in	integriert	built-in	integriert	built-in	integriert
Voltage Drop	Spannungsabfall	<2 V @ 200 mA		<2 V @ 200 mA		<2 V @ 200 mA	
Switching Frequency	Schaltfrequenz	50 Hz		50 Hz		50 Hz	
Adjustment	Einstellung	multi turn pot.	Mehrgangpoti	multi turn pot.	Mehrgangpoti	multi turn pot.	Mehrgangpoti
Repeatibility	Wiederholgenauigkeit	<10 % (S_n)		<10 % (S_n)		<10 % (S_n)	
Hysteresis	Hysterese	8…15 %		8…15 %		8…15 %	
Operating Temperature	Betriebstemperatur	–25…+150 °C		–25…+150 °C		–25…+150 °C	
Protection Class	Schutzklasse	IP 67		IP 67		IP 67	
Sensing Face	Sensorfläche	PTFE		PTFE		PTFE	
Housing Material	Gehäusewerkstoff	brass	Messing	brass	Messing	brass	Messing
Connection	Anschluss	silicone	Silikon	silicone	Silikon	PTFE	
Switching Indicator	Schaltanzeige	built-in*	integriert*			built-in*	integriert*
Article Code PNP, NO	⎍	CHH12S4BPO60-A2S		CHH12S4BPO60-N2S		CHH12S4BPO60-A2T	
Article Code PNP, NC	⎍	CHH12S4BPC60-A2S		CHH12S4BPC60-N2S		CHH12S4BPC60-A2T	
Article Code NPN, NO	⎍	CHH12S4BNO60-A2S		CHH12S4BNO60-N2S		CHH12S4BNO60-A2T	
Article Code NPN, NC	⎍	CHH12S4BNC60-A2S		CHH12S4BNC60-N2S		CHH12S4BNC60-A2T	

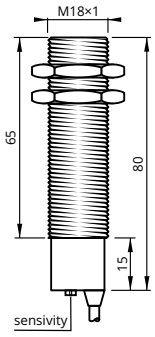
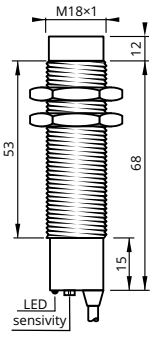
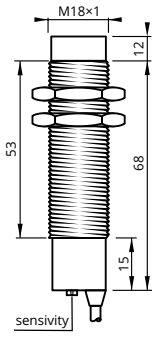
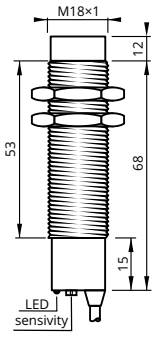
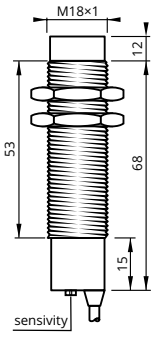
shielded bündig **M12×1 | 4 mm**	unshielded nicht bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 8 mm**	unshielded nicht bündig **M12×1 | 8 mm**
				
standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F
				
4 mm	8 mm	8 mm	8 mm	8 mm
150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F
M12×1	M12×1	M12×1	M12×1	M12×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
<10 % (S_n)	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+150 °C	–25…+150 °C	–25…+150 °C	–25…+150 °C	–25…+150 °C
IP 67	IP 67	IP 67	IP 67	IP 67
PTFE	PTFE	PTFE	PTFE	PTFE
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
PTFE	silicone Silikon	silicone Silikon	PTFE	PTFE
	built-in* integriert*		built-in* integriert*	
CHH12S4BPO60-N2T	CHH12N8BPO60-A2S	CHH12N8BPO60-N2S	CHH12N8BPO60-A2T	CHH12N8BPO60-N2T
CHH12S4BPC60-N2T	CHH12N8BPC60-A2S	CHH12N8BPC60-N2S	CHH12N8BPC60-A2T	CHH12N8BPC60-N2T
CHH12S4BNO60-N2T	CHH12N8BNO60-A2S	CHH12N8BNO60-N2S	CHH12N8BNO60-A2T	CHH12N8BNO60-N2T
CHH12S4BNC60-N2T	CHH12N8BNC60-A2S	CHH12N8BNC60-N2S	CHH12N8BNC60-A2T	CHH12N8BNC60-N2T

Minor changes possible
Geringfügige Änderungen möglich

3-Wire High Temperature
3-Leiter Hochtemperatur

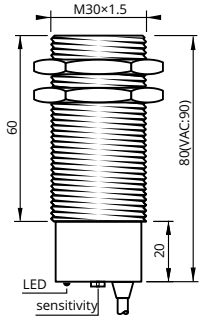
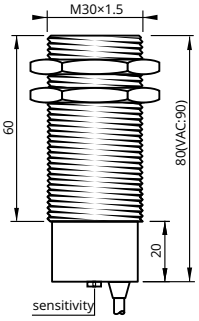
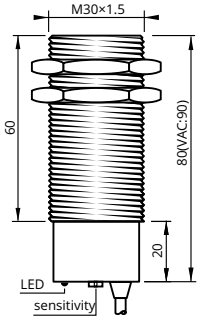
shielded bündig **M18×1 | 8 mm**	shielded bündig **M18×1 | 8 mm**	shielded bündig **M18×1 | 8 mm**
		
standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F
		

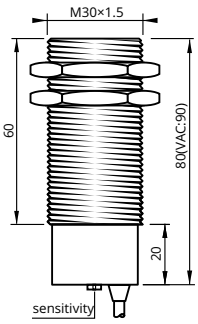
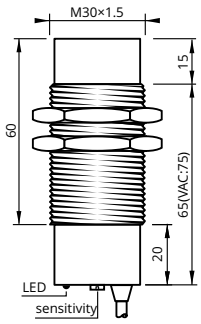
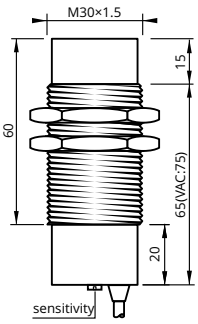
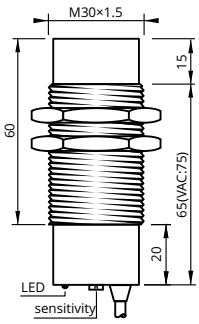
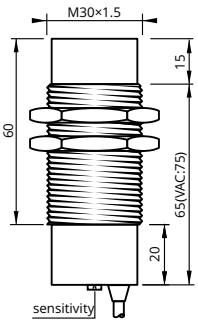
Sensing Distance	Schaltabstand	8 mm	8 mm	8 mm
Max Temperature	Maximaltemperatur	150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F
Housing Size	Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
Switching Frequency	Schaltfrequenz	50 Hz	50 Hz	50 Hz
Adjustment	Einstellung	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
Repeatibility	Wiederholgenauigkeit	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)
Hysteresis	Hysterese	8…15 %	8…15 %	8…15 %
Operating Temperature	Betriebstemperatur	–25…+150 °C	–25…+150 °C	–25…+150 °C
Protection Class	Schutzklasse	IP 67	IP 67	IP 67
Sensing Face	Sensorfläche	PTFE	PTFE	PTFE
Housing Material	Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection	Anschluss	silicone Silikon	silicone Silikon	PTFE
Switching Indicator	Schaltanzeige	built-in* integriert*		built-in* integriert*
Article Code PNP, NO	⎍	CHH18S8BPO80-A2S	CHH18S8BPO80-N2S	CHH18S8BPO80-A2T
Article Code PNP, NC	⎍	CHH18S8BPC80-A2S	CHH18S8BPC80-N2S	CHH18S8BPC80-A2T
Article Code NPN, NO	⎍	CHH18S8BNO80-A2S	CHH18S8BNO80-N2S	CHH18S8BNO80-A2T
Article Code NPN, NC	⎍	CHH18S8BNC80-A2S	CHH18S8BNC80-N2S	CHH18S8BNC80-A2T

shielded bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 15 mm**	unshielded nicht bündig **M18×1 | 15 mm**	unshielded nicht bündig **M18×1 | 15 mm**	unshielded nicht bündig **M18×1 | 15 mm**
				
standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F
				
8 mm	15 mm	15 mm	15 mm	15 mm
150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F
M18×1	M18×1	M18×1	M18×1	M18×1
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
<10 % (S_n)	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+150 °C	–25…+150 °C	–25…+150 °C	–25…+150 °C	–25…+150 °C
IP 67	IP 67	IP 67	IP 67	IP 67
PTFE	PTFE	PTFE	PTFE	PTFE
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
PTFE	silicone Silikon	silicone Silikon	PTFE	PTFE
	built-in* integriert*		built-in* integriert*	
CHH18S8BPO80-N2T	CHH18N15BPO80-A2S	CHH18N15BPO80-N2S	CHH18N15BPO80-A2T	CHH18N15BPO80-N2T
CHH18S8BPC80-N2T	CHH18N15BPC80-A2S	CHH18N15BPC80-N2S	CHH18N15BPC80-A2T	CHH18N15BPC80-N2T
CHH18S8BNO80-N2T	CHH18N15BNO80-A2S	CHH18N15BNO80-N2S	CHH18N15BNO80-A2T	CHH18N15BNO80-N2T
CHH18S8BNC80-N2T	CHH18N15BNC80-A2S	CHH18N15BNC80-N2S	CHH18N15BNC80-A2T	CHH18N15BNC80-N2T

Minor changes possible
Geringfügige Änderungen möglich

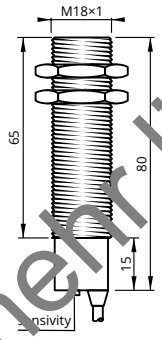
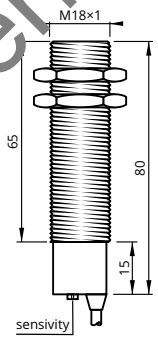
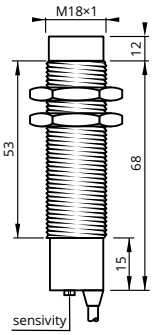
3-Wire High Temperature
3-Leiter Hochtemperatur

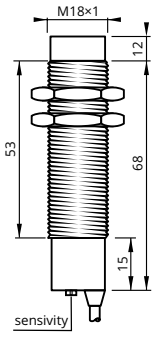
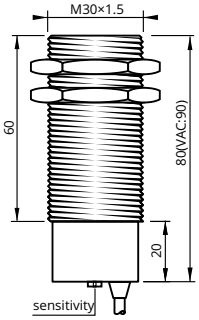
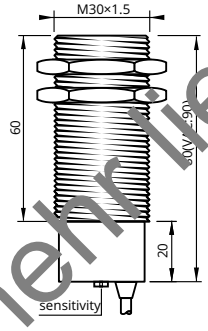
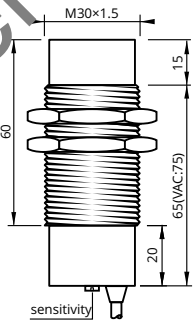
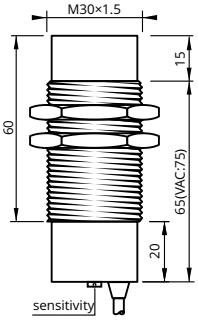
	shielded bündig **M30×1.5 | 20 mm**	shielded bündig **M30×1.5 | 20 mm**	shielded bündig **M30×1.5 | 20 mm**
			
	standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F
			
Sensing Distance	Schaltabstand	20 mm	20 mm	20 mm
Max Temperature	Maximaltemperatur	150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F
Housing Size	Gehäusegröße	M30×1.5	M30×1.5	M30×1.5
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
Switching Frequency	Schaltfrequenz	50 Hz	50 Hz	50 Hz
Adjustment	Einstellung	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
Repeatibility	Wiederholgenauigkeit	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)
Hysteresis	Hysterese	8…15 %	8…15 %	8…15 %
Operating Temperature	Betriebstemperatur	–25…+150 °C	–25…+150 °C	–25…+150 °C
Protection Class	Schutzklasse	IP 67	IP 67	IP 67
Sensing Face	Sensorfläche	PTFE	PTFE	PTFE
Housing Material	Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection	Anschluss	silicone Silikon	silicone Silikon	PTFE
Switching Indicator	Schaltanzeige	built-in* integriert*		built-in* integriert*
Article Code PNP, NO	⎍	CHH30S20BPO80-A2S	CHH30S20BPO80-N2S	CHH30S20BPO80-A2T
Article Code PNP, NC	⎍	CHH30S20BPC80-A2S	CHH30S20BPC80-N2S	CHH30S20BPC80-A2T
Article Code NPN, NO	⎍	CHH30S20BNO80-A2S	CHH30S20BNO80-N2S	CHH30S20BNO80-A2T
Article Code NPN, NC	⎍	CHH30S20BNC80-A2S	CHH30S20BNC80-N2S	CHH30S20BNC80-A2T

shielded bündig **M30×1.5 | 20 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**
				
standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F	standard 150 °C · 302 °F
				
20 mm	30 mm	30 mm	30 mm	30 mm
150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F	150 °C · 302 °F
M30×1.5	M30×1.5	M30×1.5	M30×1.5	M30×1.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
<10 % (S_n)	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+150 °C	–25…+150 °C	–25…+150 °C	–25…+150 °C	–25…+150 °C
IP 67	IP 67	IP 67	IP 67	IP 67
PTFE	PTFE	PTFE	PTFE	PTFE
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
PTFE	silicone Silikon	silicone Silikon	PTFE	PTFE
	built-in* integriert*		built-in* integriert*	
CHH30S20BPO80-N2T	CHH30N30BPO80-A2S	CHH30N30BPO80-N2S	CHH30N30BPO80-A2T	CHH30N30BPO80-N2T
CHH30S20BPC80-N2T	CHH30N30BPC80-A2S	CHH30N30BPC80-N2S	CHH30N30BPC80-A2T	CHH30N30BPC80-N2T
CHH30S20BNO80-N2T	CHH30N30BNO80-A2S	CHH30N30BNO80-N2S	CHH30N30BNO80-A2T	CHH30N30BNO80-N2T
CHH30S20BNC80-N2T	CHH30N30BNC80-A2S	CHH30N30BNC80-N2S	CHH30N30BNC80-A2T	CHH30N30BNC80-N2T

Minor changes possible
Geringfügige Änderungen möglich

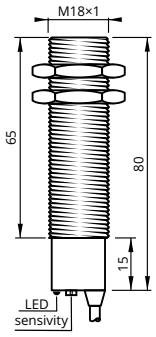
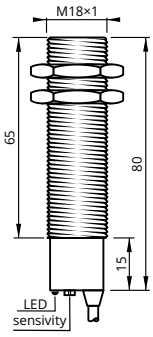
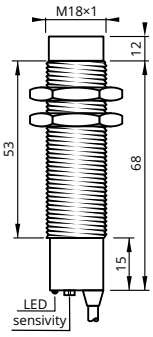
3-Wire High Temperature
3-Leiter Hochtemperatur

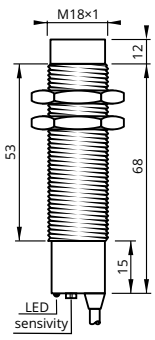
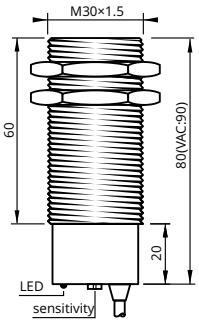
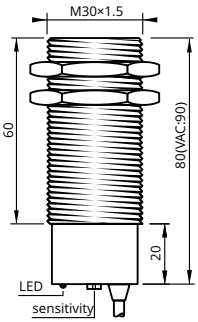
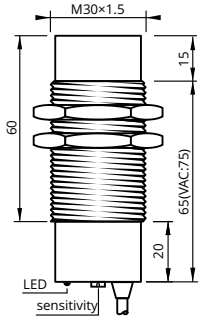
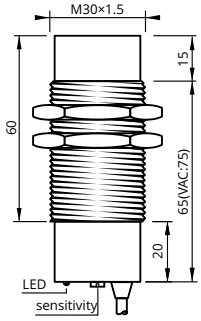
		shielded bündig **M18×1 | 8 mm**	shielded bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 15 mm**
				
		standard 180 °C · 356 °F	standard 180 °C · 356 °F	standard 180 °C · 356 °F
				
Sensing Distance	Schaltabstand	8 mm	8 mm	15 mm
Max Temperature	Maximaltemperatur	180 °C · 356 °F	180 °C · 356 °F	180 °C · 356 °F
Housing Size	Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage	Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current Load Capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop	Spannungsabfall	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
Switching Frequency	Schaltfrequenz	50 Hz	50 Hz	50 Hz
Adjustment	Einstellung	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
Repeatability	Wiederholgenauigkeit	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)
Hysteresis	Hysterese	8…15 %	8…15 %	8…15 %
Operating Temperature	Betriebstemperatur	–25…+180 °C	–25…+180 °C	–25…+180 °C
Protection Class	Schutzklasse	IP 67	IP 67	IP 67
Sensing Face	Sensorfläche	PTFE	PTFE	PTFE
Housing Material	Gehäusewerkstoff	brass Messing	brass Messing	brass Messing
Connection	Anschluss	silicone Silikon	PTFE	silicone Silikon
Switching Indicator	Schaltanzeige			
Article Code PNP, NO	⎍	CHH18S8CPO80-N2S	CHH18S8CPO80-N2T	CHH18N15CPO80-N2S
Article Code PNP, NC	⎍	CHH18S8CPC80-N2S	CHH18S8CPC80-N2T	CHH18N15CPC80-N2S
Article Code NPN, NO	⎍	CHH18S8CNO80-N2S	CHH18S8CNO80-N2T	CHH18N15CNO80-N2S
Article Code NPN, NC	⎍	CHH18S8CNC80-N2S	CHH18S8CNC80-N2T	CHH18N15CNC80-N2S

unshielded nicht bündig **M18×1 | 15 mm**	shielded bündig **M30×1.5 | 20 mm**	shielded bündig **M30×1.5 | 20 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**
				
standard 180 °C · 356 °F	standard 180 °C · 356 °F	standard 180 °C · 356 °F	standard 180 °C · 356 °F	standard 180 °C · 356 °F
				
15 mm	20 mm	20 mm	30 mm	30 mm
180 °C · 356 °F	180 °C · 356 °F	180 °C · 356 °F	180 °C · 356 °F	180 °C · 356 °F
M18×1	M30×1.5	M30×1.5	M30×1.5	M30×1.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
<10 % (S_n)	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)	<10 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+180 °C	–25…+180 °C	–25…+180 °C	–25…+180 °C	–25…+180 °C
IP 67	IP 67	IP 67	IP 67	IP 67
PTFE	PTFE	PTFE	PTFE	PTFE
brass Messing	brass Messing	brass Messing	brass Messing	brass Messing
PTFE	silicone Silikon	PTFE	silicone Silikon	PTFE
CHH18N15CPO80-N2T	CHH30S20CPO80-N2S	CHH30S20CPO80-N2T	CHH30N30CPO80-N2S	CHH30N30CPO80-N2T
CHH18N15CPC80-N2T	CHH30S20CPC80-N2S	CHH30S20CPC80-N2T	CHH30N30CPC80-N2S	CHH30N30CPC80-N2T
CHH18N15CNO80-N2T	CHH30S20CNO80-N2S	CHH30S20CNO80-N2T	CHH30N30CNO80-N2S	CHH30N30CNO80-N2T
CHH18N15CNC80-N2T	CHH30S20CNC80-N2S	CHH30S20CNC80-N2T	CHH30N30CNC80-N2S	CHH30N30CNC80-N2T

Minor changes possible
Geringfügige Änderungen möglich

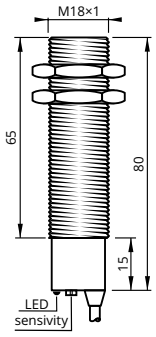
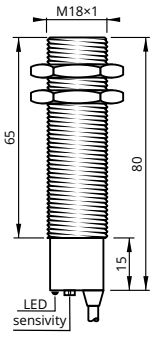
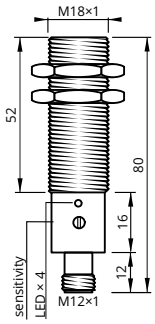
3-Wire Chemical Resistant
3-Leiter Chemie beständig

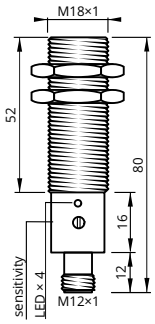
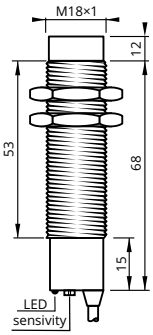
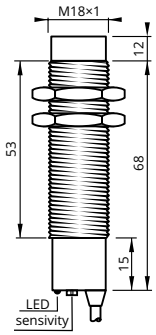
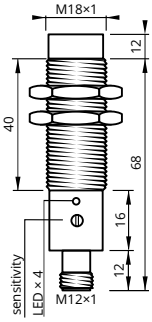
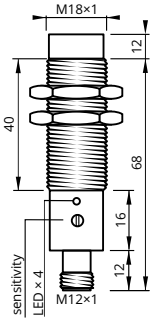
	shielded bündig **M18×1 | 12 mm**	shielded bündig **M18×1 | 12 mm**	unshielded nicht bündig **M18×1 | 20 mm**
			
	extended erweitert	extended erweitert	extended erweitert
			
Sensing Distance / Schaltabstand	12 mm	12 mm	20 mm
Housing Size / Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage / Betriebsspannung	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
Reverse Polarity Protection / Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current Consumption / Stromverbrauch	<9 mA	<9 mA	<9 mA
Current Load Capability / Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short Circuit Protection / Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage Drop / Spannungsabfall	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
Switching Frequency / Schaltfrequenz	100 Hz	100 Hz	100 Hz
Adjustment / Einstellung	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
Repeatability / Wiederholgenauigkeit	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
Hysteresis / Hysterese	8…15 %	8…15 %	8…15 %
Operating Temperature / Betriebstemperatur	–25…+70 °C	–25…+70 °C	–25…+70 °C
Protection Class / Schutzklasse	IP 67	IP 67	IP 67
Sensing Face / Sensorfläche	PTFE	PTFE	PTFE
Housing Material / Gehäusewerkstoff	PTFE	PTFE	PTFE
Connection / Anschluss	silicone Silikon	PTFE	silicone Silikon
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code PNP, NO	CNS18S12PO80T-A2S	CNS18S12PO80T-A2T	CNS18N20PO80T-A2S
Article Code PNP, NC	CNS18S12PC80T-A2S	CNS18S12PC80T-A2T	CNS18N20PC80T-A2S
Article Code NPN, NO	CNS18S12NO80T-A2S	CNS18S12NO80T-A2T	CNS18N20NO80T-A2S
Article Code NPN, NC	CNS18S12NC80T-A2S	CNS18S12NC80T-A2T	CNS18N20NC80T-A2S

unshielded nicht bündig **M18×1 | 20 mm**	shielded bündig **M30×1.5 | 25 mm**	shielded bündig **M30×1.5 | 25 mm**	unshielded nicht bündig **M30×1.5 | 35 mm**	unshielded nicht bündig **M30×1.5 | 35 mm**
				
extended erweitert	extended erweitert	extended erweitert	increased erhöht	increased erhöht
				
20 mm	25 mm	25 mm	35 mm	35 mm
M18×1	M30×1.5	M30×1.5	M30×1.5	M30×1.5
10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}	10…30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<9 mA	<9 mA	<9 mA	<9 mA	<9 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA	<2 V @ 200 mA
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C
IP 67	IP 67	IP 67	IP 67	IP 67
PTFE	PTFE	PTFE	PTFE	PTFE
PTFE	PTFE	PTFE	PTFE	PTFE
PTFE	silicone Silikon	PTFE	silicone Silikon	PTFE
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
CNS18N20PO80T-A2T	CNS30S25PO80T-A2S	CNS30S25PO80T-A2T	CNS30N35PO80T-A2S	CNS30N35PO80T-A2T
CNS18N20PC80T-A2T	CNS30S25PC80T-A2S	CNS30S25PC80T-A2T	CNS30N35PC80T-A2S	CNS30N35PC80T-A2T
CNS18N20NO80T-A2T	CNS30S25NO80T-A2S	CNS30S25NO80T-A2T	CNS30N35NO80T-A2S	CNS30N35NO80T-A2T
CNS18N20NC80T-A2T	CNS30S25NC80T-A2S	CNS30S25NC80T-A2T	CNS30N35NC80T-A2S	CNS30N35NC80T-A2T

Minor changes possible
Geringfügige Änderungen möglich

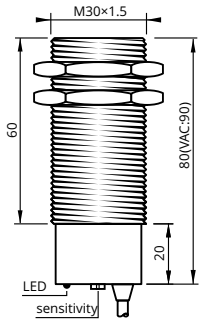
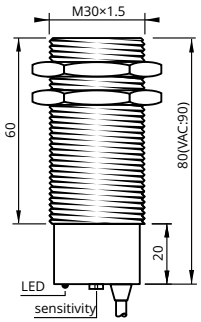
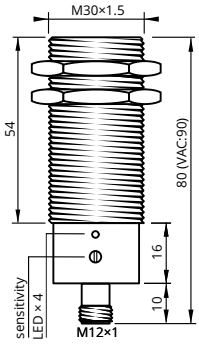
2-Wire AC
2-Leiter AC

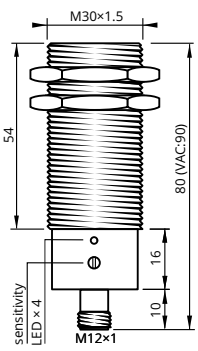
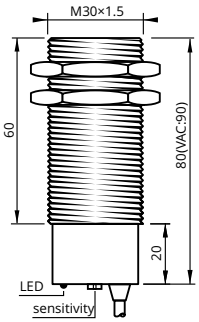
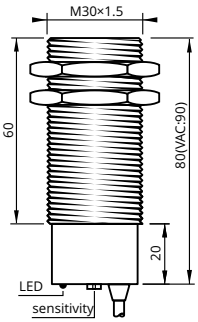
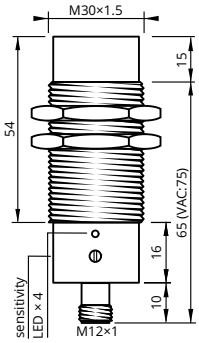
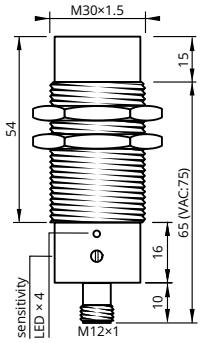
	shielded bündig **M18×1 | 8 mm**	shielded bündig **M18×1 | 8 mm**	shielded bündig **M18×1 | 8 mm**
			
	increased erhöht	increased erhöht	increased erhöht
			
Sensing Distance	Schaltabstand	8 mm	8 mm	8 mm
Housing Size	Gehäusegröße	M18×1	M18×1	M18×1
Operating Voltage	Betriebsspannung	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}
Reverse Polarity Protection	Verpolungsschutz	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.
Current Consumption	Stromverbrauch	<3 mA	<3 mA	<3 mA
Current Load Capability	Ausgangsbelastbarkeit	≈5 mA	≈5 mA	≈5 mA
Voltage Drop	Spannungsabfall	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA
Switching Frequency	Schaltfrequenz	25 Hz	25 Hz	25 Hz
Correction Factor	Korrekturfaktor			
Adjustment	Einstellung	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
Repeatibility	Wiederholgenauigkeit	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
Hysteresis	Hysterese	8…15 %	8…15 %	8…15 %
Operating Temperature	Betriebstemperatur	–25…+70 °C	–25…+70 °C	–25…+70 °C
Protection Class	Schutzklasse	IP 67	IP 67	IP 67
Sensing Face	Sensorfläche	POM	POM	POM
Housing Material	Gehäusewerkstoff	brass Messing	PBT	brass Messing
Connection	Anschluss	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code NO 20…250 V_{AC}	—/—	CNS18S8AO90-A2P	CNS18S8AO90P-A2P	CNS18S8AO90-M12
Article Code NC 20…250 V_{AC}	—/‾—	CNS18S8AC90-A2P	CNS18S8AC90P-A2P	CNS18S8AC90-M12

shielded bündig **M18×1 | 8 mm**	unshielded nicht bündig **M18×1 | 15 mm**	unshielded nicht bündig **M18×1 | 15 mm**	unshielded nicht bündig **M18×1 | 15 mm**	unshielded nicht bündig **M18×1 | 15 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				
8 mm	15 mm	15 mm	15 mm	15 mm
M18×1	M18×1	M18×1	M18×1	M18×1
20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}
not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.
<3 mA	<3 mA	<3 mA	<3 mA	<3 mA
≈5 mA	≈5 mA	≈5 mA	≈5 mA	≈5 mA
<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA
25 Hz	25 Hz	25 Hz	25 Hz	25 Hz
multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C
IP 67	IP 67	IP 67	IP 67	IP 67
POM	POM	POM	POM	POM
PBT	brass Messing	PBT	brass Messing	PBT
conn. M12 Stecker M12	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
CNS18S8AO90P-M12	CNS18N15AO90-A2P	CNS18N15AO90P-A2P	CNS18N15AO90-M12	CNS18N15AO90P-M12
CNS18S8AC90P-M12	CNS18N15AC90-A2P	CNS18N15AC90P-A2P	CNS18N15AC90-M12	CNS18N15AC90P-M12

Minor changes possible
Geringfügige Änderungen möglich

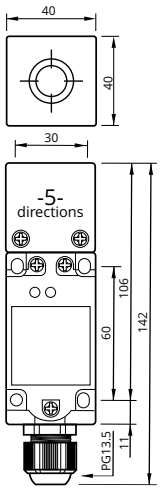
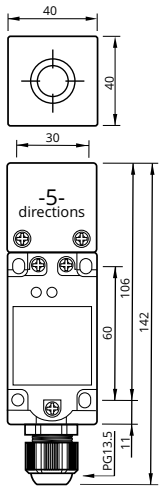
2-Wire AC
2-Leiter AC

	shielded bündig **M30×1.5 | 20 mm**	shielded bündig **M30×1.5 | 20 mm**	shielded bündig **M30×1.5 | 20 mm**
			
	increased erhöht	increased erhöht	increased erhöht
			
Sensing Distance / Schaltabstand	20 mm	20 mm	20 mm
Housing Size / Gehäusegröße	M30×1.5	M30×1.5	M30×1.5
Operating Voltage / Betriebsspannung	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}
Reverse Polarity Protection / Verpolungsschutz	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.
Current Consumption / Stromverbrauch	<3 mA	<3 mA	<3 mA
Current Load Capability / Ausgangsbelastbarkeit	≈5 mA	≈5 mA	≈5 mA
Voltage Drop / Spannungsabfall	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA
Switching Frequency / Schaltfrequenz	25 Hz	25 Hz	25 Hz
Correction Factor / Korrekturfaktor			
Adjustment / Einstellung	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
Repeatability / Wiederholgenauigkeit	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
Hysteresis / Hysterese	8…15 %	8…15 %	8…15 %
Operating Temperature / Betriebstemperatur	–25…+70 °C	–25…+70 °C	–25…+70 °C
Protection Class / Schutzklasse	IP 67	IP 67	IP 67
Sensing Face / Sensorfläche	POM	POM	POM
Housing Material / Gehäusewerkstoff	brass Messing	PBT	brass Messing
Connection / Anschluss	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12
Switching Indicator / Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Article Code NO 20…250 V_{AC}	CNS30S20AO90-A2P	CNS30S20AO90P-A2P	CNS30S20AO90-M12
Article Code NC 20…250 V_{AC}	CNS30S20AC90-A2P	CNS30S20AC90P-A2P	CNS30S20AC90-M12

shielded bündig **M30×1.5 | 20 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**	unshielded nicht bündig **M30×1.5 | 30 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				
20 mm	30 mm	30 mm	30 mm	30 mm
M30×1.5	M30×1.5	M30×1.5	M30×1.5	M30×1.5
20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}	20…250 V_{AC}
not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.	not required nicht erforderl.
<3 mA	<3 mA	<3 mA	<3 mA	<3 mA
≈5 mA	≈5 mA	≈5 mA	≈5 mA	≈5 mA
<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA	<8 V @ 400 mA
25 Hz	25 Hz	25 Hz	25 Hz	25 Hz
multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)	<4 % (S_n)
8…15 %	8…15 %	8…15 %	8…15 %	8…15 %
–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C	–25…+70 °C
IP 67	IP 67	IP 67	IP 67	IP 67
POM	POM	POM	POM	POM
PBT	brass Messing	PBT	brass Messing	PBT
conn. M12 Stecker M12	PVC, ultra-flex	PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
CNS30S20AO90P-M12	CNS30N30AO90-A2P	CNS30N30AO90P-A2P	CNS30N30AO90-M12	CNS30N30AO90P-M12
CNS30S20AC90P-M12	CNS30N30AC90-A2P	CNS30N30AC90P-A2P	CNS30N30AC90-M12	CNS30N30AC90P-M12

Minor changes possible
Geringfügige Änderungen möglich

2-Wire AC
2-Leiter AC

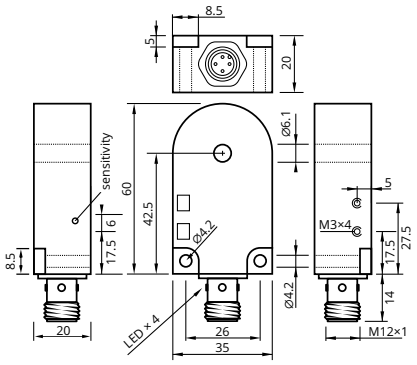
	shielded bündig **40×40 mm | 20 mm**	unshielded nicht bündig **40×40 mm | 30 mm**
		
	increased erhöht	increased erhöht
		
Sensing Distance	Schaltabstand	20 mm	30 mm
Housing Size	Gehäusegröße	40×40 mm	40×40 mm
Operating Voltage	Betriebsspannung	20…250 V_{AC}	20…250 V_{AC}
Reverse Polarity Protection	Verpolungsschutz	not required nicht erforderl.	not required nicht erforderl.
Current Consumption	Stromverbrauch	<3 mA	<3 mA
Current Load Capability	Ausgangsbelastbarkeit	≈6 mA	≈6 mA
Voltage Drop	Spannungsabfall	<8 V @ 400 mA	<8 V @ 400 mA
Switching Frequency	Schaltfrequenz	25 Hz	25 Hz
Correction Factor	Korrekturfaktor		
Adjustment	Einstellung	multi turn pot. Mehrgangpoti	multi turn pot. Mehrgangpoti
Repeatibility	Wiederholgenauigkeit	<4 % (S_n)	<4 % (S_n)
Hysteresis	Hysterese	8…15 %	8…15 %
Operating Temperature	Betriebstemperatur	–25…+70 °C	–25…+70 °C
Protection Class	Schutzklasse	IP 67	IP 67
Sensing Face	Sensorfläche	POM	POM
Housing Material	Gehäusewerkstoff	PBT	PBT
Connection	Anschluss	terminal Klemme	terminal Klemme
Switching Indicator	Schaltanzeige	built-in integriert	built-in integriert
Article Code NO 20…250 V_{AC}	—/—	CNS40S20AOL-PG13	CNS40N30AOL-PG13
Article Code NC 20…250 V_{AC}	—/—	CNS40S20ACL-PG13	CNS40N30ACL-PG13

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

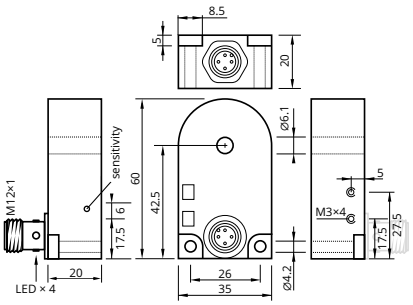
Ø 6.1 mm
adjustable
einstellbar

static
statisch



Ø 6.1 mm
adjustable
einstellbar

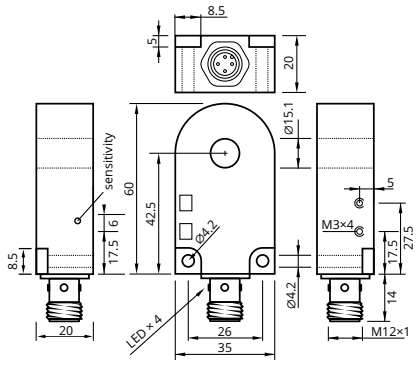
static
statisch



Resolution	Auflösung	adjustable	einstellbar	adjustable	einstellbar
Ring Diameter	Ringdurchmesser	Ø 6.1 mm		Ø 6.1 mm	
Operating Voltage	Betriebsspannung	10…30 V_{DC}		10…30 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert	built-in	integriert
Current Consumption	Stromverbrauch	<10 mA		<10 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA		200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in	integriert	built-in	integriert,
Voltage Drop	Spannungsabfall	<2 V @ 200 mA		<2 V @ 200 mA	
Adjustment	Einstellung	multi turn pot.	Mehrgangpoti	multi turn pot.	Mehrgangpoti
Operating Temperature	Betriebstemperatur	–25…+70°C		–25…+70°C	
Protection Class	Schutzklasse	IP67		IP67	
Sensing Face	Sensorfläche	PBT		PBT	
Housing Material	Gehäusewerkstoff	PA 6.6		PA 6.6	
Connection	Anschluss	conn. M12	Stecker M12	conn. M12	Stecker M12
Switching Indicator	Schaltanzeige	built-in	integriert	built-in	integriert
Article Code PNP, NO	⎍	KR 06 PSK-ST4		KR 06 PSK-R-ST4	
Article Code PNP, NC	⎍	KR 06 POK-ST4		KR 06 POK-R-ST4	
Article Code NPN, NO	⎍	KR 06 NSK-ST4		KR 06 NSK-R-ST4	
Article Code NPN, NC	⎍	KR 06 NOK-ST4		KR 06 NOK-R-ST4	

∅ 10.1 mm
adjustable
einstellbar

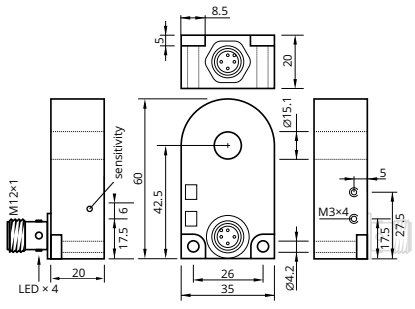
static
statisch



adjustable	einstellbar
∅ 10.1 mm	
10…30 V_{DC}	
built-in	integriert
<10 mA	
200 mA	
built-in	integriert
<2 V @ 200 mA	
multi turn pot.	Mehrgangpoti
–25…+70°C	
IP67	
PBT	
PA 6.6	
conn. M12	Stecker M12
built-in	integriert
KR 10 PSK-ST4	
KR 10 POK-ST4	
KR 10 NSK-ST4	
KR 10 NOK-ST4	

∅ 10.1 mm
adjustable
einstellbar

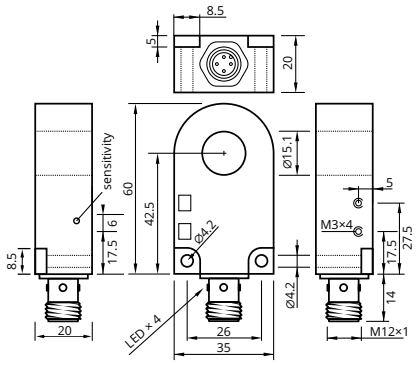
static
statisch



adjustable	einstellbar
∅ 10.1 mm	
10…30 V_{DC}	
built-in	integriert
<10 mA	
200 mA	
built-in	integriert
<2 V @ 200 mA	
multi turn pot.	Mehrgangpoti
–25…+70°C	
IP67	
PBT	
PA 6.6	
conn. M12	Stecker M12
built-in	integriert
KR 10 PSK-R-ST4	
KR 10 POK-R-ST4	
KR 10 NSK-R-ST4	
KR 10 NOK-R-ST4	

∅ 15.1 mm
adjustable
einstellbar

static
statisch



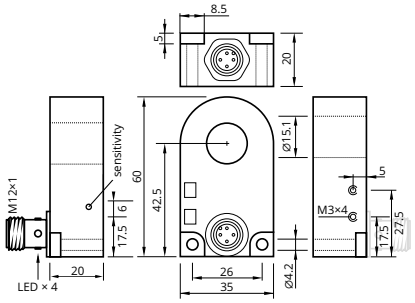
adjustable	einstellbar
∅ 15.1 mm	
10…30 V_{DC}	
built-in	integriert
<10 mA	
200 mA	
built-in	integriert
<2 V @ 200 mA	
multi turn pot.	Mehrgangpoti
–25…+70°C	
IP67	
PBT	
PA 6.6	
conn. M12	Stecker M12
built-in	integriert
KR 15 PSK-ST4	
KR 15 POK-ST4	
KR 15 NSK-ST4	
KR 15 NOK-ST4	

Minor changes possible
Geringfügige Änderungen möglich

3-Wire
3-Leiter

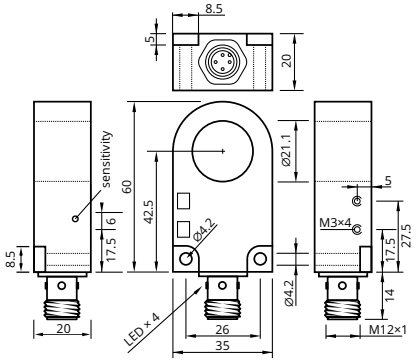
Ø 15.1 mm
adjustable
einstellbar

static
statisch



Ø 21.1 mm
adjustable
einstellbar

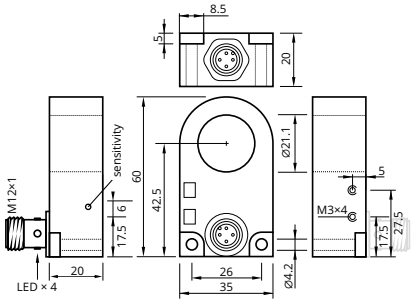
static
statisch



Resolution	Auflösung	adjustable	einstellbar	adjustable	einstellbar
Ring Diameter	Ringdurchmesser	Ø 15.1 mm		Ø 21.1 mm	
Operating Voltage	Betriebsspannung	10…30 V_{DC}		10…30 V_{DC}	
Reverse Polarity Protection	Verpolungsschutz	built-in	integriert	built-in	integriert
Current Consumption	Stromverbrauch	<10 mA		<10 mA	
Current Load Capability	Ausgangsbelastbarkeit	200 mA		200 mA	
Short Circuit Protection	Kurzschlussschutz	built-in	integriert,	built-in	integriert
Voltage Drop	Spannungsabfall	<2 V @ 200 mA		<2 V @ 200 mA	
Adjustment	Einstellung	multi turn pot.	Mehrgangpoti	multi turn pot.	Mehrgangpoti
Operating Temperature	Betriebstemperatur	–25…+70°C		–25…+70°C	
Protection Class	Schutzklasse	IP67		IP67	
Sensing Face	Sensorfläche	PBT		PBT	
Housing Material	Gehäusewerkstoff	PA 6.6		PA 6.6	
Connection	Anschluss	conn. M12	Stecker M12	conn. M12	Stecker M12
Switching Indicator	Schaltanzeige	built-in	integriert	built-in	integriert
Article Code PNP, NO	⎍	KR 15 PSK-R-ST4		KR 21 PSK-ST4	
Article Code PNP, NC	⎍	KR 15 POK-R-ST4		KR 21 POK-ST4	
Article Code NPN, NO	⎍	KR 15 NSK-R-ST4		KR 21 NSK-ST4	
Article Code NPN, NC	⎍	KR 15 NOK-R-ST4		KR 21 NOK-ST4	

∅ 21.1 mm
adjustable
einstellbar

static
statisch



adjustable	einstellbar
∅ 21.1 mm	
10…30 V_{DC}	
built-in	integriert
<10 mA	
200 mA	
built-in	integriert
<2 V @ 200 mA	
multi turn pot.	Mehrgangpoti
–25…+70°C	
IP67	
PBT	
PA 6.6	
conn. M12	Stecker M12
built-in	integriert
KR 21 PSK-R-ST4	
KR 21 POK-R-ST4	
KR 21 NSK-R-ST4	
KR 21 NOK-R-ST4	

Minor changes possible
Geringfügige Änderungen möglich